

tctgttcagg gcctctgacc ttctttctgc ccccaaccac tggcccagaa gctactgacc  
 2100  
 cagcaggggg tgggacgtac tccatccctg ggtctatgac tccatgcct tccatctcat  
 2160  
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 2210

<210> 2764

<211> 423

<212> PRT

<213> Homo sapiens

<400> 2764

Met	Pro	Pro	Gln	Ala	Leu	Phe	His	Asp	Asp	Asp	Glu	Met	Glu	Gly	Asp
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Gly	Val	Ile	Asp	Pro	Gly	Met	Glu	Tyr	Val	Pro	Pro	Pro	Ala	Gly	Ser
			20					25					30		
Val	Ala	Ser	Gly	Pro	Val	Val	Gly	Gly	Arg	Lys	Lys	Val	Arg	Gly	Pro
		35					40					45			
Glu	Gln	Ile	Lys	Gln	Glu	Val	Glu	Ser	Glu	Glu	Glu	Lys	Pro	Asp	Arg
	50					55					60				
Met	Asp	Ile	Asp	Ser	Glu	Asp	Thr	Asp	Ser	Asn	Thr	Ser	Leu	Gln	Thr
65					70					75				80	
Arg	Ala	Arg	Glu	Lys	Arg	Lys	Pro	Gln	Leu	Glu	Lys	Asp	Thr	Lys	Pro
			85					90					95		
Lys	Glu	Pro	Arg	Tyr	Thr	Pro	Val	Ser	Ile	Tyr	Glu	Glu	Lys	Leu	Leu
		100					105						110		
Leu	Lys	Arg	Leu	Glu	Ala	Cys	Pro	Gly	Ala	Val	Ala	Met	Thr	Pro	Glu
	115					120					125				
Ala	Arg	Arg	Leu	Lys	Arg	Lys	Leu	Ile	Val	Arg	Gln	Ala	Lys	Arg	Asp
	130					135					140				
Arg	Gly	Leu	Pro	Leu	Phe	Asp	Leu	Asp	Gln	Val	Val	Asn	Ala	Ala	Leu
145					150					155				160	
Leu	Leu	Val	Asp	Gly	Ile	Tyr	Gly	Ala	Lys	Glu	Gly	Gly	Ile	Ser	Arg
			165					170					175		
Leu	Pro	Ala	Gly	Gln	Ala	Thr	Tyr	Arg	Thr	Thr	Cys	Gln	Asp	Phe	Arg
		180					185					190			
Ile	Leu	Asp	Arg	Tyr	Gln	Thr	Ser	Leu	Pro	Ser	Arg	Lys	Gly	Phe	Arg
	195					200					205				
His	Gln	Thr	Thr	Lys	Phe	Leu	Tyr	Arg	Leu	Val	Gly	Ser	Glu	Asp	Met
	210				215						220				
Ala	Val	Asp	Gln	Ser	Ile	Val	Ser	Pro	Tyr	Thr	Ser	Arg	Ile	Leu	Lys
225				230						235				240	
Pro	Tyr	Ile	Arg	Arg	Asp	Tyr	Glu	Thr	Lys	Pro	Pro	Lys	Leu	Gln	Leu
			245					250					255		
Leu	Ser	Gln	Ile	Arg	Ser	His	Leu	His	Arg	Ser	Asp	Pro	His	Trp	Thr
		260					265					270			
Pro	Glu	Pro	Asp	Ala	Pro	Leu	Asp	Tyr	Cys	Tyr	Val	Arg	Pro	Asn	His
	275					280					285				
Ile	Pro	Thr	Ile	Asn	Ser	Met	Cys	Gln	Glu	Phe	Phe	Trp	Pro	Gly	Ile
	290				295					300					
Asp	Leu	Ser	Glu	Cys	Leu	Gln	Tyr	Pro	Asp	Phe	Ser	Val	Val	Val	Leu
305				310						315				320	
Tyr	Lys	Lys	Val	Ile	Ile	Ala	Phe	Gly	Phe	Met	Val	Pro	Asp	Val	Lys

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          325          330          335
Tyr Asn Glu Ala Tyr Ile Ser Phe Leu Phe Val His Pro Glu Trp Arg
          340          345          350
Arg Ala Gly Ile Ala Thr Phe Met Ile Tyr His Leu Ile Gln Thr Cys
          355          360          365
Met Gly Lys Asp Val Thr Leu His Val Ser Ala Ser Asn Pro Ala Met
          370          375          380
Leu Leu Tyr Gln Lys Phe Gly Phe Lys Thr Glu Glu Tyr Val Leu Asp
385          390          395          400
Phe Tyr Asp Lys Tyr Tyr Pro Leu Glu Ser Thr Glu Cys Lys His Ala
          405          410          415
Phe Phe Leu Arg Leu Arg Arg
          420

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<210> 2765  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

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<400> 2765
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120
agtggagggg caggatggca cggccacttg gggcttgggg gcgctccggc tgccgtaccg
180
tggtgcaag cctaaaccgg gcttggggccc atcctgagca gcccaggggt tgttcagctc
240
ccggcttctg gccactcggc atcgccagag tctccaggcc agcacagggc cagcgatggc
300
aagtccaaga agcaggcacc cgctgaccac cactgccccg atagtgcag aggccaggcc
360
aggggagcag ctgacctcca ggaaggcaga gaggttgtgc tgggagctgg ttgtgtccca
420
gcagagcaga ggcttctggc cagagcagtt gtctcggcgg atgtcgtgcc aggactccag
480
ggcacagttag cagtcggcct gcaggtcaag gtcacagcgg gcggccagcg ccccatccac
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582

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<210> 2766  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

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<400> 2766
Met Gly Arg Trp Pro Pro Ala Val Thr Leu Thr Cys Arg Pro Thr Ala
1      5      10      15
Thr Val Pro Trp Ser Pro Gly Thr Thr Ser Ala Glu Thr Thr Ala Leu
20     25     30
Ala Arg Ser Leu Cys Ser Ala Gly Thr Gln Pro Ala Pro Ser Thr Thr
35     40     45
Ser Leu Pro Ser Trp Arg Ser Ala Ala Pro Leu Ala Trp Pro Leu Gln

```



50		55		60	
Leu Ser Gly Gln Trp	Trp Ser Ala Gly Ala Cys	Phe Leu Asp Leu Pro			
65	70	75	80		
Ser Leu Ala Leu Cys Trp	Pro Gly Asp Ser Gly Asp	Ala Glu Trp Pro			
	85	90	95		
Glu Ala Gly Ser					
100					

&lt;210&gt; 2767

&lt;211&gt; 1202

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2767

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gaattcctca ttgataactg ctttgaaata tttggggaga acattccagt gcattccagt
60
atcatttctg atgactccct ggagcacact gacagttcag atgtgtcgac cctgcagaat
120
gactcagcct acgacagcaa cgaccctgat gtggaatcca acagcagcag tggcatcagc
180
tctcccagca ggcagcccca ggtgcccattg gccacagctg ctggcttggga tagcgcgggc
240
ccacaggatg cccgagaggt cagcccagag cccattgtga gcaccgtggc caggctgaaa
300
agctccctcg cacagcccga taggagatac tcagagccca gcattgccatc ctcccaggag
360
tgctctcgaga gccgggtgac aaaccaaaca ctaacaaaga gtgaagggga cttccccgtg
420
ccccgggtag gctctcgttt ggaaagtgag gaggtgaag acccatttcc agaggaggtc
480
ttccctgcag tgcaaggcaa aaccaagagg ccggtggacc tgaagatcaa gaacttggcc
540
ccgggttcgg tgctcccgcg ggcactggtt ctcaaagcct tctccagcag ctgctggac
600
gcgtcctctg acagctcgcc cgtggcttct ccttccagtc ccaaaagaaa tttcttcagc
660
agacatcagt ctttcaccac aaagacagag aaaggcaagc ccagccgaga aattaaag
720
cactccatgt ctttcacctt tgcccctcac aaaaaagtgc tgaccaaaaa cctcagcgcg
780
ggctctggga aatcgcaaga ctttaccagg gaccacgtcc cgaggggtgt cagaaaggaa
840
agccagcttg ccggccgaat cgtgcaggaa aatgggtgtg aaaccacaaa ccaaacagcc
900
cgcggcttct gcctgagacc ccacgcctc tcggtggatg atgtgttcca gggagctgac
960
tgaggagaggc ctggaagccc accctcttat gaagaggcca tgcagggccc ggcagccaga
1020
ctagtggcct cccagcaatt tcaatttcta gcttgacact aaaatgggta tttttcagta
1080
acgggggggag aagtgggggag gcagagtgtg aagggaata aaaccaatta gtaattttta
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1200

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ag  
1202

<210> 2768  
<211> 282  
<212> PRT  
<213> Homo sapiens

<400> 2768  
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1 5 10 15  
Glu Val Ser Pro Glu Pro Ile Val Ser Thr Val Ala Arg Leu Lys Ser  
20 25 30  
Ser Leu Ala Gln Pro Asp Arg Arg Tyr Ser Glu Pro Ser Met Pro Ser  
35 40 45  
Ser Gln Glu Cys Leu Glu Ser Arg Val Thr Asn Gln Thr Leu Thr Lys  
50 55 60  
Ser Glu Gly Asp Phe Pro Val Pro Arg Val Gly Ser Arg Leu Glu Ser  
65 70 75 80  
Glu Glu Ala Glu Asp Pro Phe Pro Glu Glu Val Phe Pro Ala Val Gln  
85 90 95  
Gly Lys Thr Lys Arg Pro Val Asp Leu Lys Ile Lys Asn Leu Ala Pro  
100 105 110  
Gly Ser Val Leu Pro Arg Ala Leu Val Leu Lys Ala Phe Ser Ser Ser  
115 120 125  
Ser Leu Asp Ala Ser Ser Asp Ser Ser Pro Val Ala Ser Pro Ser Ser  
130 135 140  
Pro Lys Arg Asn Phe Phe Ser Arg His Gln Ser Phe Thr Thr Lys Thr  
145 150 155 160  
Glu Lys Gly Lys Pro Ser Arg Glu Ile Lys Lys His Ser Met Ser Phe  
165 170 175  
Thr Phe Ala Pro His Lys Lys Val Leu Thr Lys Asn Leu Ser Ala Gly  
180 185 190  
Ser Gly Lys Ser Gln Asp Phe Thr Arg Asp His Val Pro Arg Gly Val  
195 200 205  
Arg Lys Glu Ser Gln Leu Ala Gly Arg Ile Val Gln Glu Asn Gly Cys  
210 215 220  
Glu Thr His Asn Gln Thr Ala Arg Gly Phe Cys Leu Arg Pro His Ala  
225 230 235 240  
Leu Ser Val Asp Asp Val Phe Gln Gly Ala Asp Trp Glu Arg Pro Gly  
245 250 255  
Ser Pro Pro Ser Tyr Glu Glu Ala Met Gln Gly Pro Ala Ala Arg Leu  
260 265 270  
Val Ala Ser Gln Gln Phe Gln Phe Leu Ala  
275 280

<210> 2769  
<211> 1286  
<212> DNA  
<213> Homo sapiens

<400> 2769  
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 120  
 ctggcgcttc tccgggtga acttatcaac cagattggga accgctgcca cccaagctc  
 180  
 tacgacgagg gcgacccctc tgagaagctg gagctgggtga caggcaccaa cgtgtacatc  
 240  
 acaagggcgc agctgatgaa ctgccacgtc agcgcaggca cgcggcacaa ggtcctactg  
 300  
 cggcggtctc tggcctcctt ctttgaccgg aacacgctgg ccaacagctg cggcaccggc  
 360  
 atccgctctt ctaccaacga tccccgtcgg aagccccctg acagccgctg gctccacgt  
 420  
 gtcaagtact actgccagaa cttcgcccc aacttcaagg agagcgagat gaatgccatc  
 480  
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 600  
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 660  
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 720  
 cctcccaaca cacacacaca cctgccatct tgggtcatgag ctactgtctg tccctcccca  
 780  
 ggaccggcgg tgggtgctgc atgttccccg ccctctgccc ctctgtcct acccccttcc  
 840  
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 900  
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 960  
 tcactccac actcaccagg cccaccaggg gagggggctg gcctgggggt cttgggaagg  
 1020  
 cccctcccca ggccnaggc cacctcgcgg aagccttcag cctccgcccc tcaactgcagc  
 1080  
 cccttgggac ttgagggggg ccccaggggt tctcaggacc cctccacca cctccagtg  
 1140  
 cttccacgtc tccaaaagcg ccttctctgt accctcgtct atccctgcgc ctgggggctg  
 1200  
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 1260  
 tgcacaaccg acctcaggtg gccggc  
 1286

&lt;210&gt; 2770

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2770

Ile Cys Asn Met Tyr Thr Met Tyr Ser Met Met Asn Val Gly Gln Thr  
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 Ala Glu Lys Val Glu Ala Leu Pro Glu Gln Val Ala Pro Glu Ser Arg  
 20 25 30  
 Asn Arg Ile Arg Val Arg Gln Asp Leu Ala Ser Leu Pro Ala Glu Leu

```

      35              40              45
Ile Asn Gln Ile Gly Asn Arg Cys His Pro Lys Leu Tyr Asp Glu Gly
      50              55              60
Asp Pro Ser Glu Lys Leu Glu Leu Val Thr Gly Thr Asn Val Tyr Ile
      65              70              75              80
Thr Arg Ala Gln Leu Met Asn Cys His Val Ser Ala Gly Thr Arg His
      85              90              95
Lys Val Leu Leu Arg Arg Leu Leu Ala Ser Phe Phe Asp Arg Asn Thr
      100              105              110
Leu Ala Asn Ser Cys Gly Thr Gly Ile Arg Ser Ser Thr Asn Asp Pro
      115              120              125
Arg Arg Lys Pro Leu Asp Ser Arg Val Leu His Ala Val Lys Tyr Tyr
      130              135              140
Cys Gln Asn Phe Ala Pro Asn Phe Lys Glu Ser Glu Met Asn Ala Ile
      145              150              155              160
Ala Ala Asp Met Cys Thr Asn Ala Arg Arg Val Val Arg Lys Ser Trp
      165              170              175
Met Pro Lys Val Lys Val Leu Lys Ala Glu Asp Asp Ala Tyr Thr Thr
      180              185              190
Phe Ile Ser Glu Thr Gly Lys Ile Glu Pro Asp Met Met Gly Val Glu
      195              200              205
His Gly Phe Glu Thr Ala Ser His Glu Gly Glu Ala Gly Pro Ile Ala
      210              215              220
Glu Ala Leu Gln
225

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&lt;210&gt; 2771

&lt;211&gt; 1668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2771

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accctctgccc cccagtcctcc cgggccaggg cgcccaacga tgtctactgt tgtggagctg
120
aacgtcgggg gtgagttcca caccaccacc ctgggtaccc tgaggaagtt tccgggctca
180
aagctggcag agatgttctc tagcttagcc aaggcctcca cggacgcgga gggccgcttc
240
ttcatcgacc gccccagcac ctatttcaga cccatcctgg actacctgcg cactgggcaa
300
gtgcccacac agcacatccc tgaagtgtac cgtgaggctc agttctacga aatcaagcct
360
ttggtcaagc tgctggagga catgccacag atctttggtg agcagggtgc tcggaagcag
420
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480
gcagaagcca taacagcacg gaagtccagc gtgcttgtgt gcctggtgga aactgaggag
540
caggatgcat attattcaga ggtcctgtgt tttctgcagg ataagaagat gttcaagtct
600
gttgtcaagt ttgggcccctg gaaggcggtc ctagacaaca gcgacctcat gcactgcctg
660

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 720  
 accaaaagaa acgaattcca ttttaacatt tattcattca ccttcacctg gtggatgatcc  
 780  
 tcaggagcag agactgttat gaattctggc gtggcttatg aaattaaaag ttgccatcaa  
 840  
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 960  
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 1020  
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 1080  
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 1260  
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 1380  
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 1560  
 gcacattctt actcagtttt tttcctctgt cctacgtgc ttccctcact ccccttctcc  
 1620  
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 1668

&lt;210&gt; 2772

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2772

Val	Ile	Cys	Met	Trp	Gln	Gly	Cys	Ala	Val	Glu	Arg	Pro	Val	Gly	Arg
1				5					10					15	
Met	Thr	Ser	Gln	Thr	Pro	Leu	Pro	Gln	Ser	Pro	Arg	Pro	Arg	Arg	Pro
			20					25					30		
Thr	Met	Ser	Thr	Val	Val	Glu	Leu	Asn	Val	Gly	Gly	Glu	Phe	His	Thr
			35				40					45			
Thr	Thr	Leu	Gly	Thr	Leu	Arg	Lys	Phe	Pro	Gly	Ser	Lys	Leu	Ala	Glu
	50				55					60					
Met	Phe	Ser	Ser	Leu	Ala	Lys	Ala	Ser	Thr	Asp	Ala	Glu	Gly	Arg	Phe
65				70					75					80	
Phe	Ile	Asp	Arg	Pro	Ser	Thr	Tyr	Phe	Arg	Pro	Ile	Leu	Asp	Tyr	Leu
			85				90					95			
Arg	Thr	Gly	Gln	Val	Pro	Thr	Gln	His	Ile	Pro	Glu	Val	Tyr	Arg	Glu

[illegible]

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<210> 2773
<211> 593
<212> DNA
<213> Homo sapiens
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120
gaggaggagg cgctggaccc tctgggcatt atgcgctcca agaagcccaa gaaacatccc
180
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240
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300
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360
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420
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480
gattagcttc ttgagagcag gaaccacatt cattctttgt gtctgccttg tgactatcca
540
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593
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<210> 2774
<211> 157
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 2774

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 20 25 30  
 Glu Asp Ala Glu Glu Ser Leu Glu Glu Glu Glu Ala Leu Asp Pro Leu  
 35 40 45  
 Gly Ile Met Arg Ser Lys Lys Pro Lys Lys His Pro Lys Val Ala Val  
 50 55 60  
 Lys Ala Lys Pro Ser Pro Arg Leu Thr Ile Phe Asp Glu Glu Val Asp  
 65 70 75 80  
 Pro Asp Glu Gly Leu Phe Gly Pro Gly Arg Lys Leu Ser Pro Gln Asp  
 85 90 95  
 Pro Ser Glu Asp Val Ser Ser Met Asp Pro Leu Lys Leu Phe Asp Asp  
 100 105 110  
 Pro Asp Leu Gly Gly Ala Ile Pro Leu Gly Asp Ser Leu Leu Leu Pro  
 115 120 125  
 Ala Ala Cys Glu Ser Gly Gly Pro Thr Pro Ser Leu Ser His Arg Asp  
 130 135 140  
 Ala Ser Lys Glu Leu Phe Arg Gln Ile Gln Lys Glu Pro  
 145 150 155

&lt;210&gt; 2775

&lt;211&gt; 3139

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2775

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 gagcccgacg ggggtctctgc catgggggag tgacgcgcct gcacccgctg ttccgcggca  
 120  
 gcggcgagac atgaggagac cccgcgacag gggcagcgcc gccgggctctg gagccccggg  
 180  
 atggaggaga aatacggcgg ggacgtgctg gccggccccc gccggggcgg cggccttggg  
 240  
 ccggtggacg taccagcgc tcgattaaca aaatatattg tggtactatg tttactaaa  
 300  
 tttttgaagg ctgtgggact tttcgaatca tatgatctcc taaaagctgt tcacattgtt  
 360  
 cagttcattt ttatatataa acttgggact gcatttttta tggttttgtt tcaaaagcca  
 420  
 ttttctctg ggaaaactat taccaaacac cagtggatca aaatatataa acatgcagtt  
 480  
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 720  
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 780

ttattgctag tactggcttt gtgttgtaaa gttggttttc atacagcttc cagaaagctc  
840  
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900  
ctcttgtgcc catgggtcat tgttctttct gtgacaactg agagtaaagt ggagtcttgg  
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1080  
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1140  
cttcgggcta tgaacaaagc agcacaccag gagagcactg aacacgtcct gtctggagga  
1200  
gtggtagtga gtgctatatt cttcattttg tctgccaata tcttatcatc tccctctaag  
1260  
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1380  
aaacaaattc ttgaggagag tgactctagg cagatctttt acttcttctg cttgaatctg  
1440  
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Val Ser Trp Ser Tyr Asp Arg Val Gln Ala Asp Asn Asn Asp Tyr Trp
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Thr Glu Cys Phe Asn Ala Leu Glu Gln Gly Arg Gln Tyr Val Asp Asn
      210          215          220
Pro Thr Gly Gly Lys Val Asp Glu Ala Leu Val Arg Ser Ala Thr Val
225          230          235          240
His Ser Trp Pro His Ser Asn Val Leu Asp Ile Ser Met Leu Ser Ser
      245          250          255
Gln Asp Val Val Arg Met Leu Leu Ser Leu Gln Pro Phe Leu Gln Asp
      260          265          270
Ala Ile Gln Lys Lys Arg Thr Gly Arg Thr Trp Glu Asn Ile Gln His
      275          280          285
Val Gln Gly Pro Leu Thr Trp Gln Gln Phe His Lys Met Ala Gly Arg
      290          295          300
Gly Thr Tyr Gly Ser Glu Glu Ser Pro Glu Pro Leu Pro Ile Pro Thr
305          310          315          320
Leu Leu Val Gly Tyr Asp Lys Asp Phe Leu Thr Ile Ser Pro Phe Ser
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Leu Pro Phe Trp Glu Arg Leu Leu Leu Asp Pro Tyr Gly Gly His Arg
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Asp Val Ala Tyr Ile Val Val Cys Pro Glu Asn Glu Ala Leu Leu Glu
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Arg Leu Gly Gln His Lys Pro Ile Cys Lys Val Leu Arg Asp Gly Ile

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Glu Arg Ile Gly Ile Pro Thr Glu Pro Asp Ser Ala Asp Ser His Ala
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His Pro Pro Ala Val Val Ile Tyr Met Val Asp Pro Phe Thr Tyr Ala
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Ala Glu Glu Asp Ser Thr Ser Gly Asn Phe Trp Leu Leu Ser Leu Met
625          630          635          640
Arg Cys Tyr Thr Glu Met Leu Asp Asn Leu Pro Glu His Met Arg Asn
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Ser Phe Ile Leu Gln Ile Val Pro Cys Gln Tyr Met Leu Gln Thr Met
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Lys Asp Glu Gln Val Phe Tyr Ile Gln Tyr Leu Lys Ser Met Ala Phe
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Ser Val Tyr Cys Gln Cys Arg Arg Pro Leu Pro Thr Gln Ile His Ile
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Ile Leu Ala Pro Ile Lys Asp Lys Gln Thr Glu Leu Gly Glu Thr Phe
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Ser His Asp Gln Arg Trp Leu Leu Ala Ser Cys Thr Asp Leu His Gly
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Glu Leu Leu Glu Thr Cys Val Val Asn Ile Ala Leu Pro Asn Arg Ser
785          790          795          800
Arg Arg Ser Lys Val Ser Ala Arg Lys Ile Gly Leu Gln Lys Leu Trp
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Glu Trp Cys Ile Gly Ile Val Gln Met Thr Ser Leu Pro Trp Arg Val

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Lys	Asp	Val	Cys	Arg	Met	Cys	Gly	Ile	Ser	Ala	Ala	Asp	Ser	Pro	Ser				
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Ile	Leu	Ser	Ala	Cys	Leu	Val	Ala	Met	Glu	Pro	Gln	Gly	Ser	Phe	Val				
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Val	Met	Pro	Asp	Ala	Val	Thr	Met	Gly	Ser	Val	Phe	Gly	Arg	Ser	Thr				
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Ala	Leu	Asn	Met	Gln	Ser	Ser	Gln	Leu	Asn	Thr	Pro	Gln	Asp	Ala	Ser				
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Cys	Thr	His	Ile	Leu	Val	Phe	Pro	Thr	Ser	Ser	Thr	Ile	Gln	Val	Ala				
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Ile	Leu	Met	Thr	Gly	Asn	Leu	His	Ser	Ser	Pro	Asn	Ser	Ser	Pro	Val				
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Pro	Ser	Pro	Gly	Ser	Pro	Ser	Gly	Ile	Gly	Val	Gly	Ser	His	Phe	Gln				
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His	Ser	Arg	Ser	Gln	Gly	Glu	Arg	Leu	Leu	Ser	Arg	Glu	Ala	Pro	Glu				
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Lys	Ala	Glu	Asn	Leu	Pro	Gln	Trp	Phe	Trp	Ser	Ser	Cys	Pro	Gln	Ala				
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Val	Leu	Glu	Gln	Tyr	Asn	Ala	Leu	Ser	Trp	Leu	Thr	Cys	Asn	Pro	Ala				
1105							1110				1115				1120				
Thr	Gln	Asp	Arg	Thr	Ser	Cys	Leu	Pro	Val	His	Phe	Val	Val	Leu	Thr				
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<210> 2779

<211> 2461

<212> DNA

<213> Homo sapiens

<400> 2779

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&lt;210&gt; 2780

&lt;211&gt; 720

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2780

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			20					25					30		
Val	Thr	Gly	Ile	Arg	Arg	Met	Arg	Phe	Lys	Gly	Leu	Ala	Gly	Val	Asp
		35					40					45			
Ser	Ser	Leu	Glu	Val	Val	Ser	Leu	Leu	Pro	Pro	Arg	Ser	Phe	Ser	Leu
	50					55					60				
Asn	Ser	Glu	Gly	Ala	Glu	Arg	Met	Ala	Thr	Thr	Gly	Thr	Pro	Thr	Ala
65					70					75				80	
Asp	Arg	Gly	Asp	Ala	Ala	Ala	Thr	Asp	Asp	Pro	Ala	Ala	Arg	Phe	Gln
			85						90					95	
Val	Gln	Lys	His	Ser	Trp	Asp	Gly	Leu	Arg	Ser	Ile	Ile	His	Gly	Ser
		100						105					110		
Arg	Lys	Tyr	Ser	Gly	Leu	Ile	Val	Asn	Lys	Ala	Pro	His	Asp	Phe	Gln
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Phe	Val	Gln	Lys	Thr	Asp	Glu	Ser	Gly	Pro	His	Ser	His	Arg	Leu	Tyr
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Tyr	Leu	Gly	Met	Pro	Tyr	Gly	Ser	Arg	Glu	Asn	Ser	Leu	Leu	Tyr	Ser
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			165						170					175	
Lys	Gln	Met	Leu	Asp	His	Phe	Gln	Ala	Thr	Pro	His	His	Gly	Val	Tyr

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Ser	Arg	Glu	Glu	Glu	Leu	Leu	Arg	Glu	Arg	Lys	Arg	Leu	Gly	Val	Phe		
		195					200					205					
Gly	Ile	Thr	Ser	Tyr	Asp	Phe	His	Ser	Glu	Ser	Gly	Leu	Phe	Leu	Phe		
		210				215					220						
Gln	Ala	Ser	Asn	Ser	Leu	Phe	His	Cys	Arg	Asp	Gly	Gly	Lys	Asn	Gly		
225					230					235					240		
Phe	Met	Val	Ser	Pro	Gly	Pro	Gly	Cys	Val	Ser	Pro	Met	Lys	Pro	Leu		
				245					250					255			
Glu	Ile	Lys	Thr	Gln	Cys	Ser	Gly	Pro	Arg	Met	Asp	Pro	Lys	Ile	Cys		
			260					265					270				
Pro	Ala	Asp	Pro	Ala	Phe	Phe	Ser	Phe	Ile	Asn	Asn	Ser	Asp	Leu	Trp		
		275					280					285					
Val	Ala	Asn	Ile	Glu	Thr	Gly	Glu	Glu	Arg	Arg	Leu	Thr	Phe	Cys	His		
		290				295					300						
Gln	Gly	Leu	Ser	Asn	Val	Leu	Asp	Asp	Pro	Lys	Ser	Ala	Gly	Val	Ala		
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Thr	Phe	Val	Ile	Gln	Glu	Glu	Phe	Asp	Arg	Phe	Thr	Gly	Tyr	Trp	Trp		
				325					330					335			
Cys	Pro	Thr	Ala	Ser	Trp	Glu	Gly	Ser	Glu	Gly	Leu	Lys	Thr	Leu	Arg		
			340					345					350				
Ile	Leu	Tyr	Glu	Glu	Val	Asp	Glu	Ser	Glu	Val	Glu	Val	Ile	His	Val		
		355					360					365					
Pro	Ser	Pro	Ala	Leu	Glu	Glu	Arg	Lys	Thr	Asp	Ser	Tyr	Arg	Tyr	Pro		
		370				375					380						
Arg	Thr	Gly	Ser	Lys	Asn	Pro	Lys	Ile	Ala	Leu	Lys	Leu	Ala	Glu	Phe		
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Gln	Thr	Asp	Ser	Gln	Gly	Lys	Ile	Val	Ser	Thr	Gln	Glu	Lys	Glu	Leu		
				405					410					415			
Val	Gln	Pro	Phe	Ser	Ser	Leu	Phe	Pro	Lys	Val	Glu	Tyr	Ile	Ala	Arg		
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		435					440					445					
Arg	Pro	Gln	Gln	Trp	Leu	Gln	Leu	Val	Leu	Leu	Pro	Pro	Ala	Leu	Phe		
		450				455					460						
Ile	Pro	Ser	Thr	Glu	Asn	Glu	Glu	Gln	Arg	Leu	Ala	Ser	Ala	Arg	Ala		
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Val	Pro	Arg	Asn	Val	Gln	Pro	Tyr	Val	Val	Tyr	Glu	Glu	Val	Thr	Asn		
			485						490					495			
Val	Trp	Ile	Asn	Val	His	Asp	Ile	Phe	Tyr	Pro	Phe	Pro	Gln	Ser	Glu		
			500					505					510				
Gly	Glu	Asp	Glu	Leu	Cys	Phe	Leu	Arg	Ala	Asn	Glu	Cys	Lys	Thr	Gly		
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Tyr Ser Ser Val Ser Thr Pro Pro Cys Val His Val Tyr Lys Leu Ser		640
	645	650
Gly Pro Asp Asp Asp Pro Leu His Lys Gln Pro Arg Phe Trp Ala Ser		655
	660	665
Met Met Glu Ala Ala Ser Cys Pro Pro Asp Tyr Val Pro Pro Glu Ile		670
	675	680
Phe His Phe His Thr Arg Ser Asp Val Arg Leu Tyr Gly Met Ile Tyr		685
	690	700
Lys Pro His Ala Leu Gln His Ile Thr Lys Lys Ser Thr Val Phe Glu		
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&lt;210&gt; 2781

&lt;211&gt; 1268

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2781

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<211> 314

<212> PRT

<213> Homo sapiens

<400> 2782

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		35				40						45			
Phe	Ser	Ser	Arg	Phe	Lys	Asn	Leu	Ala	His	Gln	His	Gln	Ser	Met	Phe
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Phe	Ala	Glu	Arg	Ile	Arg	Pro	Met	Val	Arg	Asp	Gly	Val	Tyr	Phe	Met
			85					90						95	
Tyr	Glu	Ala	Leu	His	Gly	Pro	Pro	Lys	Lys	Ile	Leu	Val	Glu	Gly	Ala
			100					105					110		
Asn	Ala	Ala	Leu	Leu	Asp	Ile	Asp	Phe	Gly	Thr	Tyr	Pro	Phe	Val	Thr
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Ser	Ser	Asn	Cys	Thr	Val	Gly	Gly	Val	Cys	Thr	Gly	Leu	Gly	Ile	Pro
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Pro	Gln	Asn	Ile	Gly	Asp	Val	Tyr	Gly	Val	Val	Lys	Ala	Tyr	Thr	Thr
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			260					265					270		
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<211> 2376

<212> DNA

<213> Homo sapiens

<400> 2783

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 420  
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 480  
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 600  
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 720  
 aagaagacca tggagaatgt ggatagtctg gataagctgg agtgtagatt caagctgaat  
 780  
 tcctacaaga tgggtgtatgt gatcaaatca gaggactata tgtatcggag gaccgacctg  
 840  
 ctccgggctc atcagtccca tgagcgtgta agcaagcgtc tacatcagag attccaggcc  
 900  
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 960  
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 1020  
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 1080  
 ccttaactgc aaagccagag cagataactt ggggtgtgtg tggggatgtg tgtgtgggcc  
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 1260  
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 1320



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 1380  
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 1440  
 ctgttcacac tttgactgga tggagatgca ttacaaaac agactggaga aggacttaat  
 1500  
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 1620  
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 1740  
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 1920  
 ttgatgtgct agcataactg ctctagcttc ttgtgtacca tagtactgtg gcttcagatt  
 1980  
 tagtacctat gaacagatgt acaagacatt tattacactt tttaccaaag ggagttacca  
 2040  
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 2100  
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 2160  
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 2220  
 aacaggattt tgcttaaaat acttgttact tgtcccaaat caaaatattc caaaatctta  
 2280  
 gaatacttaa gtcttttagt acgtgttttt ttccttggtt caaataatct gaaaatattt  
 2340  
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 2376

&lt;210&gt; 2784

&lt;211&gt; 361

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2784

Ala Glu Arg Gln Ile Glu Glu Glu Asn Arg Glu Arg Glu Trp Glu Arg  
 1 5 10 15  
 Glu Val Leu Gly Ile Lys Arg Asp Lys Ser Asp Ser Pro Ala Ile Gln  
 20 25 30  
 Leu Arg Leu Lys Glu Pro Met Asp Val Asp Val Glu Asp Tyr Tyr Pro  
 35 40 45  
 Ala Phe Leu Asp Met Val Arg Ser Leu Leu Asp Gly Asn Ile Asp Ser  
 50 55 60  
 Ser Gln Tyr Glu Asp Ser Leu Arg Glu Met Phe Thr Ile His Ala Tyr  
 65 70 75 80  
 Ile Ala Phe Thr Met Asp Lys Leu Ile Gln Ser Ile Val Arg Gln Leu

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<400> 2785
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60
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120
tgatgagatc ctcttcaca tcctgagtca cgtccccagc acagatctga ttctgaacgt
180
ccggcggtacc tgtcggaagc ttgcagccct gtgccttgac aagagcctca tccacaccgt
240
gttgctgcaa aaggactatc aggcgagcga ggacaaagtg aggcagctgg tgaaggagat
300
cggccgggag atccagcagc tgagcatggc tggctgctac tggctgctg gctccaccgt
360
```

ggaacacgtg gcccgctgcc cgcagcctgg tgaaggtgaa cctctcgggc tgccacctca  
 420  
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 480  
 acgtgagccc cg  
 492

<210> 2786

<211> 155

<212> PRT

<213> Homo sapiens

<400> 2786

Met	Ala	Ser	Ser	Gly	Glu	Asp	Ile	Ser	Asn	Asp	Asp	Asp	Asp	Met	His
1				5					10					15	
Pro	Ala	Ala	Ala	Gly	Met	Ala	Asp	Gly	Val	His	Leu	Leu	Gly	Phe	Ser
			20					25					30		
Asp	Glu	Ile	Leu	Leu	His	Ile	Leu	Ser	His	Val	Pro	Ser	Thr	Asp	Leu
		35					40						45		
Ile	Leu	Asn	Val	Arg	Arg	Thr	Cys	Arg	Lys	Leu	Ala	Ala	Leu	Cys	Leu
		50				55					60				
Asp	Lys	Ser	Leu	Ile	His	Thr	Val	Leu	Leu	Gln	Lys	Asp	Tyr	Gln	Ala
65					70					75				80	
Ser	Glu	Asp	Lys	Val	Arg	Gln	Leu	Val	Lys	Glu	Ile	Gly	Arg	Glu	Ile
				85					90					95	
Gln	Gln	Leu	Ser	Met	Ala	Gly	Cys	Tyr	Trp	Leu	Pro	Gly	Ser	Thr	Val
			100					105					110		
Glu	His	Val	Ala	Arg	Cys	Pro	Gln	Pro	Gly	Glu	Gly	Glu	Pro	Leu	Gly
		115					120					125			
Leu	Pro	Pro	His	Phe	Pro	Ala	Pro	Leu	Gln	Asp	Ala	Leu	Gly	Pro	Ala
		130				135					140				
Ala	Pro	Ala	Leu	Ala	Gly	His	Arg	Arg	Glu	Pro					
145						150				155					

<210> 2787

<211> 299

<212> DNA

<213> Homo sapiens

<400> 2787

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 60  
 atgtggggag aagagccgta ctctgacata tcagttgcta aaacacgtgc agggcatgcc  
 120  
 acaatgcaca gacatggcag tacccttctg gtgggagggg gtcaccattt gctctgcctt  
 180  
 gccctctgct ggggtgctctt acaggtgcta ctgcatccag cgcttgaaac aattctgtgg  
 240  
 ggtattgatt ctgaagagat cactgatggc cgtgatttct tgcctcagct taccagat  
 299

<210> 2788

<211> 95

<212> PRT

<213> Homo sapiens

<400> 2788

```

Met Thr Arg Asp Ser Gly Met Lys Gln Lys His Ala Ala Ser Thr Ser
 1             5             10             15
Met Trp Gly Glu Glu Pro Tyr Ser Asp Ile Ser Val Ala Lys Thr Arg
          20             25             30
Ala Gly His Ala Thr Met His Arg His Gly Ser Ile Leu Leu Val Gly
      35             40             45
Gly Ser His His Leu Leu Cys Pro Ala Leu Cys Trp Val Leu Leu Gln
      50             55             60
Val Leu Leu His Pro Ala Leu Glu Thr Ile Leu Trp Gly Ile Asp Ser
65             70             75             80
Glu Glu Ile Thr Asp Gly Arg Asp Phe Leu Pro Gln Leu Thr Gln
          85             90             95

```

<210> 2789

<211> 492

<212> DNA

<213> Homo sapiens

<400> 2789

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nggaccccag ctgctccttt ttgaaggaaa tctgctcgct cagggagtcg atgcggccga
60
gctgctggaa ggagtgcacc aggaggtgc cgggggtccg gagcccatgc tccagtgcct
120
gcgaggccag gctgtgcagt ggggccagca ccagctgcag cttctcctcc agcaggtcca
180
ccctggactg cagcctctgc acttcttctc tcattgcact gtccactcct gcgggcagag
240
ccaggcgctg ggtcacggcc ggccggctcc ccacccacac ccccagggt ccctcctgtc
300
cccagggaga ggcagagcca gaagactcag gcccaggcct ctgccacccc cgctgcctgc
360
ctggcgctgg ccagaggtct caggctatgc cgcctaagta cgtcggggcg ggtggctctg
420
cgcagaggct caggggtccg gccacgtga gggaggtcaa ggctgaggtc tcagcggccc
480
tcgttccgaa tt
492

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<210> 2790

<211> 141

<212> PRT

<213> Homo sapiens

<400> 2790

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Arg Lys Ser Ala Arg Ser Gly Ser Arg Cys Gly Arg Ala Ala Gly Arg
 1             5             10             15
Ser Ala Pro Gly Gly Cys Arg Gly Pro Gly Ala His Ala Pro Val Pro
      20             25             30
Ala Arg Pro Gly Cys Ala Val Gly Pro Ala Pro Ala Ala Ser Pro
      35             40             45
Pro Ala Gly Pro Pro Trp Thr Ala Ala Ser Ala Leu Leu Pro Ser Leu

```

50		55		60
His Cys Pro Leu Leu Arg Ala Glu Pro Gly Ala Gly Ser Arg Pro Ala				
65		70		75
Gly Ser Pro Pro Thr Pro Pro Gly Leu Pro Pro Val Pro Arg Glu Arg				80
	85		90	95
Gln Ser Gln Lys Thr Gln Ala Gln Ala Ser Ala Thr Pro Ala Ala Cys				
	100		105	110
Leu Ala Leu Ala Arg Gly Leu Arg Leu Cys Arg Leu Ser Thr Ser Gly				
	115		120	125
Arg Val Ala Leu Arg Arg Gly Ser Gly Ser Arg Pro Arg				
130		135		140

&lt;210&gt; 2791

&lt;211&gt; 1271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2791

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nntgtacagg ggatgcagaa tcaatgaaag agataaacia acatcagagt actgtcagac
60
atagaggact ggataatata tttgtgtcct tctacatagt ggtatagaaa tatcaggtcc
120
ccaaattccc atttttcttc caatcacatt taaaatttca atatgttgca ggcagtatgt
180
gtaagattat atccaaatat ttactcctgg ttgctcctct tgggcaagct gtgaatatga
240
tcaaaatatt taaagaagga agaaggtaaa gatctaaaat atgacatgaa aatacccaga
300
gaagtgtgcc taaattagca ttagggtttg agggatccta aggatgacaa aaagggactc
360
ttctattgaa ttcgtggttg atgctcagcg atagtaacia tcctgcctcc cctaaccatct
420
tcctccccct ccagcagctt cacagaacat ggttgatgag gtaacttagg ggatgcacag
480
ggtgtggcca gaagaccctt tcccctatag accactatga gccctgaaag atttatgagg
540
taatgttcac ttcactcctgt gcttcttttc ctagatgtga actatgaaga ctttactttc
600
accataccag atgtagagga ctcaagtcag agaccagatc agggacccca gagacctcct
660
cctgaaggac tcctacctag accccctggt gatagtggta accaagatga tggtcctcag
720
cagagaccac caaaaccagg aggccatcac cgccatcctc cccacacctc ttttcaaaat
780
cagcaacgac caccacaacg aggacaccgt caactctctc taccctgatt tccttctgtc
840
agcctgcagg aagcatcatc attcttccgg agggacagac cagcaagaca tccccaggag
900
caaccactct ggtaatctag aattcagtgg cagaaaataa ataagaagat aacttccttc
960
agaaagccat gacattgaaa taatgtggtc ataactcttt cttcagtata ccaataaaat
1020
attaatagca tgcggaagaa agaatggttt gcatccacat ggagagtgtg ccatttagag
1080

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gtaacaggga gaggagaggg tgtgccatca agaggcaaca tggagggtgtt tcaaacctat  
 1140  
 gcatcttggt ataaatatat ctttgctcac atgaatttta cttgttaatt agcctggctg  
 1200  
 ggggtgaatgg taacaggaga gaaatggaag agaataggga gcaactgcgcc agcattaaca  
 1260  
 gctcactgtc t  
 1271

<210> 2792

<211> 123

<212> PRT

<213> Homo sapiens

<400> 2792

Cys	Ser	Leu	His	Pro	Val	Leu	Leu	Phe	Leu	Asp	Val	Asn	Tyr	Glu	Asp
1				5					10					15	
Phe	Thr	Phe	Thr	Ile	Pro	Asp	Val	Glu	Asp	Ser	Ser	Gln	Arg	Pro	Asp
			20					25					30		
Gln	Gly	Pro	Gln	Arg	Pro	Pro	Pro	Glu	Gly	Leu	Leu	Pro	Arg	Pro	Pro
		35				40						45			
Gly	Asp	Ser	Gly	Asn	Gln	Asp	Asp	Gly	Pro	Gln	Gln	Arg	Pro	Pro	Lys
	50				55						60				
Pro	Gly	Gly	His	His	Arg	His	Pro	Pro	Pro	Pro	Pro	Phe	Gln	Asn	Gln
65					70					75				80	
Gln	Arg	Pro	Pro	Gln	Arg	Gly	His	Arg	Gln	Leu	Ser	Leu	Pro	Arg	Phe
			85					90						95	
Pro	Ser	Val	Ser	Leu	Gln	Glu	Ala	Ser	Ser	Phe	Phe	Arg	Arg	Asp	Arg
		100					105						110		
Pro	Ala	Arg	His	Pro	Gln	Glu	Gln	Pro	Leu	Trp					
		115					120								

<210> 2793

<211> 847

<212> DNA

<213> Homo sapiens

<400> 2793

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 120  
 tgaggcggcg gcgtcactgc caggaaacaa cccaacagt cagcgcgccg gcggccgcgg  
 180  
 cggccctgag agctgactct gcagctgagg tagagagaca acgatcagga accctaagaa  
 240  
 gaggcgccag aggagccgcc ttctgcctca gaacggcggtg actcggagaa ttggagcggt  
 300  
 attcagtata ttaatgtett attgataatg gcagaacatc caccactact ggatacaact  
 360  
 cagatcttaa gtagtgatat ttctcttttg tctgccccta ttgtaagtgc agatggaaca  
 420  
 caacagggtta ttctggtaca agttaaccca ggagaagcat ttacaataag aagagaagat  
 480

ggacagtttc agtgcattac aggtcctgct caggttccaa tgatgtcccc aaatggttct  
 540  
 gtgcctccta tctatgtgcc tcctggatat gcccacagg ttattgaaga caatggtgtt  
 600  
 cgaagagttg tcgtgggtccc tcaggcacca gagtttcacc ctggtagtca cacagttctc  
 660  
 caccgttctc cacatcctcc tctacctggt ttcatctctg tcccaactat gatgccgcct  
 720  
 caccacgtca tatgtactca cccgtgactg gagctggaga catgacaaca cagtatatgc  
 780  
 cncagtatca gtcttcacaa gtctatggag atgtagatgc tcactctaca catggccctt  
 840  
 cacgcgt  
 847

<210> 2794

<211> 139

<212> PRT

<213> Homo sapiens

<400> 2794

Met	Ala	Glu	His	Pro	Pro	Leu	Leu	Asp	Thr	Thr	Gln	Ile	Leu	Ser	Ser
1				5				10					15		
Asp	Ile	Ser	Leu	Leu	Ser	Ala	Pro	Ile	Val	Ser	Ala	Asp	Gly	Thr	Gln
			20					25					30		
Gln	Val	Ile	Leu	Val	Gln	Val	Asn	Pro	Gly	Glu	Ala	Phe	Thr	Ile	Arg
		35				40					45				
Arg	Glu	Asp	Gly	Gln	Phe	Gln	Cys	Ile	Thr	Gly	Pro	Ala	Gln	Val	Pro
	50					55				60					
Met	Met	Ser	Pro	Asn	Gly	Ser	Val	Pro	Pro	Ile	Tyr	Val	Pro	Pro	Gly
65					70					75				80	
Tyr	Ala	Pro	Gln	Val	Ile	Glu	Asp	Asn	Gly	Val	Arg	Arg	Val	Val	Val
			85						90					95	
Val	Pro	Gln	Ala	Pro	Glu	Phe	His	Pro	Gly	Ser	His	Thr	Val	Leu	His
			100						105					110	
Arg	Ser	Pro	His	Pro	Pro	Leu	Pro	Gly	Phe	Ile	Pro	Val	Pro	Thr	Met
		115				120						125			
Met	Pro	Pro	His	His	Val	Ile	Cys	Thr	His	Pro					
		130				135									

<210> 2795

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 2795

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 ccaatgacca ccagcaccac gaagagcgtg ccgtagtgcg tcgcacactg gctggcccgc  
 120  
 gcttggcagc tgctggttgt ggaatagttc tggatgccaa tctcctccag gctcctgcgg  
 180  
 atgtcaccca gcatggaaag gacatcttga gtgggcacca cccctgctc gccaccagt  
 240

gtcattgagaa ggtgctgctc cttctcgtcg ggcttgctca gagagatgtg ccaggcccca  
 300  
 tggtagccac tgccatggcg gggcagcacc tcttcacca gggccaggag ctgtggcccc  
 360  
 cggtagctgcc ggaacacctc acagtctatg ttctctgtca tgttcagaat gatgtagttt  
 420  
 ttcccagcca gattgctcca gtccttgagc atcacctgcg tagaatcca gggtagcctg  
 480  
 gattgagctt cagctgcctg cccttctagg agctgctggt tgagatcttc ttgtcccaag  
 540  
 gtagcagagg aagggtgtcag ttccatgtct ccaggggcca gtggggaaga ggctgaggtt  
 600  
 ctagagccaa ggggatcttc atctgggtgc tcggcccccac tgggagctgt ggtttgaggg  
 660  
 aatgaaggca aggcggcac ctctcgtgc tggccagaca aaccagctgc tcctgcagtg  
 720  
 gcttctctgc ttgcttctg aggagcctcg aactctaccc caagcctgc agctggcagc  
 780  
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 900  
 gaaaagtcac ggacctgagg cttggcttct tcttgggatc cattcacagg gagcagctcc  
 960  
 tctcttctc cctctcttg tttctctacc tcttcttct ccctctctc cccttcacgc  
 1020  
 gt  
 1022

&lt;210&gt; 2796

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2796

Ala	Ser	Ala	Ala	Cys	Pro	Ser	Arg	Ser	Cys	Trp	Leu	Arg	Ser	Ser	Cys
1				5					10					15	
Pro	Lys	Val	Ala	Glu	Glu	Gly	Val	Ser	Ser	Met	Ser	Pro	Gly	Ala	Ser
			20					25					30		
Gly	Glu	Glu	Ala	Glu	Val	Leu	Glu	Pro	Arg	Gly	Ser	Ser	Ser	Gly	Cys
			35				40					45			
Ser	Ala	Pro	Leu	Gly	Ala	Val	Val								
	50					55									

&lt;210&gt; 2797

&lt;211&gt; 475

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2797

cgcccgctgc tgattgcctt cagcgcctgc accacgggtgc tggtagccgt gcacctgttc  
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 gccctctca tcagcacctg catcctgccc aatgtggagg ccgtgagcaa catccacaac  
 120



ctgaactcca tcagcgagtc cccgcatgag cgcattgcacc cctacatcga gctggcctgg  
 180  
 ggcttctcca ccgtgcttgg cctcctactc ttcctggccg aggtgggtgct gctctgctgg  
 240  
 atcaagttcc tccccgtgga tgcccggcgc cagcctggcc cccacactgg ccctggggagt  
 300  
 cacacgggct ggcaggccgc cctgggtgtcc accatcatca tgggtgccgt gggcctcatc  
 360  
 ttcgtggtct tcaccatcca cttctaccgc tccctgggtgc gccacaaaac ggagcgccac  
 420  
 aaccgcgaga tcgaggagct ccacaagctc aaggtccagc tggacgggca tgagc  
 475

<210> 2798

<211> 158

<212> PRT

<213> Homo sapiens

<400> 2798

Arg	Pro	Leu	Leu	Ile	Ala	Phe	Ser	Ala	Cys	Thr	Thr	Val	Leu	Val	Ala
1				5					10					15	
Val	His	Leu	Phe	Ala	Leu	Leu	Ile	Ser	Thr	Cys	Ile	Leu	Pro	Asn	Val
		20						25					30		
Glu	Ala	Val	Ser	Asn	Ile	His	Asn	Leu	Asn	Ser	Ile	Ser	Glu	Ser	Pro
	35						40					45			
His	Glu	Arg	Met	His	Pro	Tyr	Ile	Glu	Leu	Ala	Trp	Gly	Phe	Ser	Thr
	50					55				60					
Val	Leu	Gly	Ile	Leu	Leu	Phe	Leu	Ala	Glu	Val	Val	Leu	Leu	Cys	Trp
65				70					75					80	
Ile	Lys	Phe	Leu	Pro	Val	Asp	Ala	Arg	Arg	Gln	Pro	Gly	Pro	Pro	Pro
			85					90					95		
Gly	Pro	Gly	Ser	His	Thr	Gly	Trp	Gln	Ala	Ala	Leu	Val	Ser	Thr	Ile
		100					105					110			
Ile	Met	Val	Pro	Val	Gly	Leu	Ile	Phe	Val	Val	Phe	Thr	Ile	His	Phe
	115					120					125				
Tyr	Arg	Ser	Leu	Val	Arg	His	Lys	Thr	Glu	Arg	His	Asn	Arg	Glu	Ile
	130					135				140					
Glu	Glu	Leu	His	Lys	Leu	Lys	Val	Gln	Leu	Asp	Gly	His	Glu		
145					150					155					

<210> 2799

<211> 2872

<212> DNA

<213> Homo sapiens

<400> 2799

ntatctttcg attcatctgt ggggtttcgg tttggaatga ccagcttgca aggcagggcc  
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 aatgggatga tggagtgtg gtagaccagg gcagacagcg atccgaagtt tggctcattg  
 120  
 gggcagccct tgagcttgac tcctctgggg ccagtctcta tcagaaaatg cctgaccagc  
 180  
 tcatgggtca tgtctccttt ttattctgc tgcattgatg ttggaggtgg cgaagacacc  
 240

ttcatggcca gcccgtacaa gctgagatc tccagggagc aggccatcgc gctcctcaag  
300  
gaccaggagc cgggggcctt catcatccgc gacagtcaact ccttccgagg cgcgtaacggg  
360  
ctggccatga aggtgtcttc gccacctcca accatcatgc agcagaataa aaaaggagac  
420  
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<210> 2800

<211> 294

<212> PRT

<213> Homo sapiens

<400> 2800

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			20					25					30		
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Glu	Leu	Val	Arg	His	Phe	Leu	Ile	Glu	Thr	Gly	Pro	Arg	Gly	Val	Lys
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 Ile Ser Lys Ala Thr Ser Glu Thr Leu Ala Ala Asp Pro Thr Pro Ala  
 180 185 190  
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 Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His Tyr Pro Leu Asn Thr  
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 245 250 255  
 Gly Ser Thr Thr Asp Asn Ala Cys His Leu Phe Ala Glu Leu Asp Pro  
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&lt;210&gt; 2801

&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2801

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&lt;210&gt; 2802

<211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 2802  
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 Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys  
 35 40 45  
 Asp Ala Ile Arg Ala Leu Lys Lys Arg Leu Asn Gly Asn Arg Asn Tyr  
 50 55 60  
 Arg Glu Val Met Leu Ala Leu Thr Val Leu Glu Thr Cys Val Lys Asn  
 65 70 75 80  
 Cys Gly His Arg Phe His Ile Leu Val Ala Asn Arg Asp Phe Ile Asp  
 85 90 95  
 Ser Val Leu Val Lys Ile Ile Ser Pro Lys Asn Asn Pro Pro Thr Ile  
 100 105 110  
 Val Gln Asp Lys Val Leu Ala Leu Ile Gln Ala Trp Ala Asp Ala Phe  
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<210> 2803  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

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<210> 2804  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 2804

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 Val Arg Gly Met Thr Asp Ser Pro Pro Ala Val Gly Cys Val Leu  
 35 40 45  
 Ser Gly Leu Thr Gly Thr Leu Ser Pro Ser Arg Ser Cys Ser Val Cys  
 50 55 60  
 Thr Ser Pro Ser Ser Pro Pro Ala Thr Gly Thr Gly Pro Ala Ala Pro  
 65 70 75 80  
 Thr Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln  
 85 90 95  
 Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln  
 100 105 110  
 Ser Asp Val Asp Xaa Cys Asn Glu Gly Arg Ser Ala Glu Ala Ala Val  
 115 120 125  
 Gln Gly Gly Pro Ala Gly Gly Glu Ala Ala Ala Gly Thr Gly Pro Thr  
 130 135 140  
 Ala Gln Pro Gly Leu Ala Gly Thr Gly  
 145 150

&lt;210&gt; 2805

&lt;211&gt; 771

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2805

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<210> 2806  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

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 Lys Ile Glu Arg Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala  
 35 40 45  
 Lys Lys Lys Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys  
 50 55 60  
 Gln Leu Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg  
 65 70 75 80  
 Asn Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly  
 85 90 95  
 Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp Thr  
 100 105 110  
 Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr Val Arg  
 115 120 125  
 Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu Ile Val Pro  
 130 135 140  
 Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr Asp Thr Val Thr  
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 Asp Asn Val His His Pro Ser Leu Phe Val Ala Phe Tyr Asp Tyr Gln  
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<210> 2807  
 <211> 1660  
 <212> DNA  
 <213> Homo sapiens

<400> 2807  
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&lt;210&gt; 2808

&lt;211&gt; 390

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2808

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Glu	Leu	Ala	Gly	Cys	Ala	Ser	Cys	Leu	Thr	Val	Gln	Asp	Asn	Trp	Thr
			20					25					30		
Leu	Glu	Leu	Glu	Ser	Ser	Gln	Asp	Ile	Gln	Asp	Val	Leu	Asp	Ala	Asn
			35				40					45			
Lys	Ser	Leu	Pro	Glu	Ser	Ser	Leu	Thr	Asp	Leu	Leu	Ser	Asp	Asn	Phe



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Thr Asp Ser Leu Val	Ser Phe Ser Ala Glu Ile Leu Ser Arg Thr Leu	
65	70	75
Cys Glu Pro Leu Val	Ala Ser Leu Trp Met Lys Leu Gly Asn Thr Gly	80
	85	90
Ala Met Arg Arg Cys Val Lys Leu Thr Val Ala Leu Glu Thr Ala Glu		95
	100	105
Cys Glu Phe Pro Pro His Leu Asp Val Tyr Ile Glu Asp Pro His Leu		110
	115	120
Pro Pro Ser Leu Gly Leu Leu Pro Gly Ala Arg Val His Phe Ser Gln		125
	130	135
Leu Glu Lys Arg Val Ser Arg Ser His Asn Val Tyr Cys Cys Phe Arg		140
	145	150
Ser Ser Thr Tyr Val Gln Val Leu Ser Phe Pro Pro Glu Thr Thr Ile		155
	160	165
Ser Val Pro Leu Pro His Ile Tyr Leu Ala Glu Leu Leu Gln Gly Gly		170
	175	180
Gln Ser Pro Phe Gln Ala Thr Ala Ser Cys His Ile Val Ser Val Phe		185
	190	195
Ser Leu Gln Leu Phe Trp Val Cys Ala Tyr Cys Thr Ser Ile Cys Arg		200
	205	210
Gln Gly Lys Cys Thr Arg Leu Gly Ser Thr Cys Pro Thr Gln Thr Ala		215
	220	225
Ile Ser Gln Ala Ile Ile Arg Leu Leu Val Glu Asp Gly Thr Ala Glu		230
	235	240
Ala Val Val Thr Cys Arg Asn His His Val Ala Ala Ala Leu Gly Leu		245
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Cys Pro Arg Glu Trp Ala Ser Leu Leu Asp Phe Val Gln Val Pro Gly		260
	265	270
Arg Val Val Leu Gln Phe Ala Gly Pro Gly Ala Gln Leu Glu Ser Ser		275
	280	285
Ala Arg Val Asp Glu Pro Met Thr Met Phe Leu Trp Thr Leu Cys Thr		290
	295	300
Ser Pro Ser Val Leu Arg Pro Ile Val Leu Ser Phe Glu Leu Glu Arg		305
	310	315
Lys Pro Ser Lys Ile Val Pro Leu Glu Pro Pro Arg Leu Gln Arg Phe		320
	325	330
Gln Cys Gly Glu Leu Pro Phe Leu Thr His Val Asn Pro Arg Leu Arg		335
	340	345
Leu Ser Cys Leu Ser Ile Arg Glu Ser Glu Tyr Ser Ser Ser Leu Gly		350
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Ile Leu Ala Ser Ser Cys		365
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	380	
	385	
	390	

&lt;210&gt; 2809

&lt;211&gt; 1502

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2809

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aa  
1502

&lt;210&gt; 2810

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2810

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Val Cys Val Cys Ala Arg Leu Cys Val Cys Val Cys Ala Ser Val Cys
 20             25             30
Ala Cys Val Cys Ala Cys Val Arg Leu Cys Val Arg Leu Cys Ala Cys
 35             40             45
Val Cys Ala Ser Val Cys Met Cys Ala Arg Ala Xaa Val Cys Val Cys
 50             55             60
Thr Cys Val Xaa Leu Cys Thr Arg Val Cys Val Cys Val His Ala Cys
 65             70             75             80
Val Cys Val Cys Ala Arg Ala Cys Thr Ser Pro Pro Glu His Leu Gly
 85             90             95
Phe Gly Thr Arg Trp Phe
             100

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&lt;210&gt; 2811

&lt;211&gt; 591

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2811

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120
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&lt;210&gt; 2812

&lt;211&gt; 131

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2812

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Met His Pro Ser Ser Ser Ala Ser Gln Pro Ser Val Ala Arg Arg Gln
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Ser Pro Ser Leu Gly Gly Lys Ser Pro Glu Pro Ser Leu Pro Xaa Cys
 20             25             30
Pro Ala Pro Ala Val Asp Glu Pro Gln Pro Xaa Ser Gln Ala Pro Pro

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Gly Pro Arg Val Pro Gly Pro Pro Arg Pro Trp Gly Ala Ala Pro Leu
      50              55              60
Arg Pro Arg Pro Gly Glu Gly Asp Pro Val Thr Arg Glu Arg Ser Pro
65              70              75              80
Val Pro Gly Ala Thr Glu Met Pro Pro Pro Arg Pro Lys Val Pro Ala
      85              90              95
Pro Pro Gly Pro Thr Gly Arg Ser Pro Arg Ala Ala Val Gly His His
      100              105              110
Arg Ala Ala Gly Pro Pro Gly Cys Val Gly Pro Ser Leu Ser Gly Gln
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Leu Gly Ser
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<210> 2813  
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 <212> DNA  
 <213> Homo sapiens

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1020

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2417

&lt;210&gt; 2814

&lt;211&gt; 471

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

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Trp Lys Glu Leu Ser Leu Lys Tyr Lys Gln Ser Phe Gln Glu Ala Arg  
35 40 45  
Asp Glu Leu Val Glu Phe Gln Glu Gly Ser Arg Glu Leu Glu Ala Glu  
50 55 60  
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65 70 75 80  
Ala Asp Asn Gln Arg Leu Lys Tyr Glu Val Glu Ala Leu Lys Glu Lys  
85 90 95  
Leu Glu His Gln Tyr Ala Gln Ser Tyr Lys Gln Val Ser Val Leu Glu  
100 105 110  
Asp Asp Leu Ser Gln Thr Arg Ala Ile Lys Glu Gln Leu His Lys Tyr  
115 120 125  
Val Arg Glu Leu Glu Gln Ala Asn Asp Asp Leu Glu Arg Ala Lys Arg  
130 135 140  
Ala Thr Ile Val Ser Leu Glu Thr Leu Asn Lys Leu Asn Gln Ala Ile  
145 150 155 160  
Glu Arg Asn Ala Phe Leu Glu Ser Glu Leu Asp Glu Lys Glu Ser Leu  
165 170 175  
Leu Val Ser Val Gln Arg Leu Lys Asp Glu Ala Arg Asp Leu Arg Gln  
180 185 190  
Glu Leu Ala Val Arg Glu Arg Gln Gln Glu Val Thr Arg Lys Ser Ala  
195 200 205  
Pro Ser Ser Pro Thr Leu Asp Cys Glu Lys Met Asp Ser Ala Val Gln  
210 215 220  
Ala Ser Leu Ser Leu Pro Ala Thr Pro Val Gly Lys Gly Thr Glu Asn  
225 230 235 240  
Thr Phe Pro Ser Pro Lys Ala Ile Pro Asn Gly Phe Gly Thr Ser Pro  
245 250 255  
Leu Thr Pro Ser Ala Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu  
260 265 270  
Leu Arg Lys Val Gly Ala Leu Glu Ser Lys Leu Ala Ala Cys Arg Asn  
275 280 285  
Phe Ala Lys Asp Gln Ala Ser Arg Lys Ser Tyr Ile Ser Gly Asn Val  
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Asn Cys Gly Val Leu Asn Gly Asn Gly Thr Lys Phe Ser Arg Ser Gly  
305 310 315 320  
His Thr Ser Phe Phe Asp Lys Gly Ala Val Asn Gly Phe Asp Pro Ala  
325 330 335  
Pro Pro Pro Pro Gly Leu Gly Ser Ser Arg Pro Ser Ser Ala Pro Gly  
340 345 350  
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355 360 365  
Leu Leu Gln Gln Pro Arg Thr Pro Thr Pro His Pro Ser Val Pro Gly  
370 375 380  
Pro Ser Pro Val Pro Leu Arg Leu Pro Pro His Gly Trp Gln Arg Ala  
385 390 395 400  
Gly Cys Met Gln Trp Arg Leu Leu Gly Pro Ala Gln Pro Arg Asn Ser  
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Ala Arg Tyr Gln Tyr Trp Leu Phe Ser Leu Leu Ala Val Val Pro Leu

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Val	Ser	His	Asp	Cys	Thr	Phe	Val	Gly	Arg	Lys	Val	Ile	His	Thr	Cys
	435						440					445			
Ile	Thr	Trp	Ser	Leu	Asp	Ala	Glu	Val	Pro	Ile	His	His	Thr	Cys	Pro
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Ile	Ala	Pro	Thr	Leu	Leu	Tyr									
465					470										

&lt;210&gt; 2815

&lt;211&gt; 1421

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2815

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1200

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<210> 2816

<211> 307

<212> PRT

<213> Homo sapiens

<400> 2816

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			20					25					30		
Val	Arg	Ala	His	Gly	Asp	Pro	Val	Ser	Glu	Ser	Phe	Val	Gln	Arg	Val
		35					40					45			
Tyr	Gln	Pro	Phe	Leu	Thr	Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr
	50					55					60				
Tyr	Arg	Thr	Ile	Tyr	Arg	Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala
65					70				75					80	
Pro	Ala	Arg	Pro	Arg	Tyr	Ala	Cys	Cys	Pro	Gly	Trp	Lys	Arg	Thr	Ser
				85					90					95	
Gly	Leu	Pro	Gly	Ala	Cys	Gly	Ala	Ala	Ile	Cys	Gln	Pro	Pro	Cys	Arg
			100					105					110		
Asn	Gly	Gly	Ser	Cys	Val	Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly
	115						120					125			
Trp	Arg	Gly	Asp	Thr	Cys	Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg
	130				135					140					
Arg	Gly	Gly	Cys	Pro	Gln	Arg	Cys	Val	Asn	Thr	Ala	Gly	Ser	Tyr	Trp
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Cys	Gln	Cys	Trp	Glu	Gly	His	Ser	Leu	Ser	Ala	Asp	Gly	Thr	Leu	Cys
				165					170					175	
Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly	Val
			180					185					190		
Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val	Asp
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Leu	Leu	Glu	Glu	Lys	Leu	Gln	Leu	Val	Leu	Ala	Pro	Leu	His	Ser	Leu
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Ala	Ser	Gln	Ala	Gly	Ala	Trp	Ala	Pro	Gly	Pro	Arg	Gln	Pro	Pro	Gly
225					230					235				240	
Ala	Leu	Leu	Pro	Ala	Ala	Arg	Pro	His	Arg	Leu	Pro	Glu	Arg	Ala	Asp
				245					250					255	
Phe	Leu	Pro	Gly	Gly	Ala	Ala	Gly	Val	Leu	Leu	Leu	Gln	Glu	Arg	Leu
			260					265					270		
Xaa	Asp	Cys	Pro	Ala	Pro	Gln	Ala	Gly	Leu	Ser	Pro	Ser	Arg	Arg	Pro
	275						280					285			
Ala	Ala	Pro	Met	Pro	Leu	Pro	Asn	Met	Leu	Gly	Val	Gln	Lys	Pro	Pro
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Arg	Gly	Asp													



305

&lt;210&gt; 2817

&lt;211&gt; 219

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2817

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 gttctgctgc gggcggagtt ccatcagcac cagcacacac accagcacac gcaccaacac  
 180  
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 219

&lt;210&gt; 2818

&lt;211&gt; 73

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2818

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Leu	Arg	Gln	Glu	Leu	Asn	Thr	Arg	Phe	Leu	Val	Gln	Ser	Ala	Glu	Arg
		20						25				30			
Pro	Gly	Ala	Ser	Leu	Gly	Pro	Gly	Val	Leu	Leu	Arg	Ala	Glu	Phe	His
		35				40						45			
Gln	His	Gln	His	Thr	His	Gln	His	Thr	His	Gln	His	Thr	His	Gln	His
	50					55						60			
Gln	His	Thr	Phe	Ala	Pro	Phe	Thr	Arg							
65						70									

&lt;210&gt; 2819

&lt;211&gt; 730

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2819

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 120  
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<210> 2820

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2820

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	20						25					30			
Ser	Ala	Gly	Ala	Arg	Gly	His	Thr	Gly	Pro	Lys	Gly	Gln	Lys	Gly	Ser
	35					40					45				
Met	Gly	Ala	Pro	Gly	Glu	Arg	Cys	Lys	Ser	His	Tyr	Ala	Ala	Phe	Ser
	50					55					60				
Val	Gly	Arg	Glu	Ala	His	Ala	Gln	Gln	Pro	Leu	Leu	Pro	Asp	Val	Ile
65					70				75					80	
Phe	Asp	Thr	Glu	Phe	Val	Asn	Leu	Tyr	Asp	His	Phe	Asn	Met	Phe	Thr
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Gly	Lys	Phe	Tyr	Cys	Tyr	Val	Pro	Gly	Leu	Tyr	Phe	Phe	Ser	Leu	Asn
	100							105					110		
Val	His	Thr	Trp	Asn	Gln	Lys	Glu	Thr	Tyr	Leu	His	Ile	Met	Lys	Asn
	115					120						125			
Glu	Glu	Glu	Val	Val	Ile	Leu	Phe	Ala	Gln	Val	Gly	Asp	Arg	Ser	Ile
	130					135					140				
Met	Gln	Ser	Gln	Ser	Leu	Met	Leu	Glu	Leu	Arg	Glu	Gln	Asp	Gln	Val
145					150					155				160	
Trp	Val	Arg	Leu	Tyr	Lys	Gly	Glu	Arg	Glu	Asn	Ala	Ile	Phe	Ser	Glu
		165						170						175	
Glu	Leu	Asp	Thr	Tyr	Ile	Thr	Phe	Ser	Gly	Tyr	Leu	Val	Lys	His	Ala
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Thr	Glu	Pro													
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<210> 2821

<211> 1746

<212> DNA

<213> Homo sapiens

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<210> 2822  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Lys His Val Glu Phe Asp Phe Leu Ile Lys Gly Gln Phe Leu Arg Met  
 50 55 60  
 Pro Leu Asp Lys His Met Glu Met Glu Asp Ile Ser Ser Glu Glu Val  
 65 70 75 80  
 Val Glu Ile Glu Tyr Val Glu Lys Tyr Thr Ala Pro Gln Pro Glu Gln  
 85 90 95  
 Cys Met Phe His Asp Asp Trp Ile Ser Ser Ile Lys Gly Ala Glu Glu  
 100 105 110  
 Trp Ile Leu Thr Gly Ser Tyr Gly Lys Thr Ser Arg Ile Trp Ser Leu  
 115 120 125  
 Glu Gly Lys Ser Ile Met Thr Ile Val Gly His Thr Asp Val Val Lys  
 130 135 140  
 Asp Val Ala Trp Val Lys Lys Asp Ser Leu Ser Cys Leu Leu Xaa Glu  
 145 150 155 160  
 Cys Phe Tyr Gly Ser Asp Tyr Ser Leu Met Gly Val Glu Cys Arg Glu  
 165 170 175  
 Lys Gln Ser Glu Ser Pro Thr Leu Leu Xaa Arg Gly His Ala Gly Ser  
 180 185 190  
 Val Asp Ser Ile Ala Val Asp Gly Ser Gly Thr Lys Phe Cys Ser Gly  
 195 200 205  
 Ser Trp Asp Lys Met Leu Lys Ile Trp Ser Thr Val Pro Thr Asp Glu  
 210 215 220  
 Glu Asp Glu Met Glu Glu Ser Thr Asn Arg Pro Arg Lys Lys Gln Lys  
 225 230 235 240  
 Thr Glu Gln Leu Gly Leu Thr Arg Thr Pro Ile Val Thr Leu Ser Gly  
 245 250 255  
 His Met Glu Ala Val Ser Ser Val Leu Trp Ser Asp Ala Glu Glu Ile  
 260 265 270  
 Cys Ser Ala Ser Trp Asp His Thr Ile Arg Val Trp Asp Val Glu Ser  
 275 280 285  
 Gly Ser Leu Lys Ser Thr Leu Thr Gly Asn Lys Val Phe Asn Cys Ile  
 290 295 300  
 Ser Tyr Ser Pro Leu Cys Lys Arg Leu Ala Ser Gly Ser Thr Asp Arg  
 305 310 315 320  
 His Ile Arg Leu Trp Asp Pro Arg Thr Lys Asp Gly Ser Leu Val Ser  
 325 330 335  
 Leu Ser Leu Thr Ser His Thr Gly Trp Val Thr Ser Val Lys Trp Ser

```

          340          345          350
Pro Thr His Glu Gln Gln Leu Ile Ser Gly Ser Leu Asp Asn Ile Val
          355          360          365
Lys Leu Trp Asp Thr Arg Ser Cys Lys Ala Pro Leu Tyr Asp Leu Ala
          370          375          380
Ala His Glu Asp Lys Val Leu Ser Val Asp Trp Thr Asp Thr Gly Leu
385          390          395          400
Leu Leu Ser Gly Gly Ala Asp Asn Lys Leu Tyr Ser Tyr Arg Tyr Ser
          405          410          415
Pro Thr Thr Ser His Val Gly Ala
          420

```

&lt;210&gt; 2823

&lt;211&gt; 461

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2823

```

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60
gttggtgtctg tcagtggggg aagggggcgg aaccctcatg ctgggggttcg ggtggacgtg
120
ggtgggtggt gaccctgtt gggaggcaga cacagtcaca ggcgtcgccc ttgggaaggg
180
cagccggaga agctggccct gtgtgggcct gggcctgtag gggttcccag tggctttgcg
240
gagccagaga gctggatggc acctggtcca gccaaagcaaa gccccgaggg caggggctgg
300
atggggacac gcacatgtcc cttggccacg acaaaatggc agtgatgctg cttgccttcc
360
tgcagcatct gtgaggatca aatgcgtgca cctacgcaaa gcatccgcac atagcaagtg
420
ctcacctagc acaggagccc cgtgctcctc ccaagtctca g
461

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&lt;210&gt; 2824

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2824

```

Met Cys Val Ser Pro Ser Ser Pro Cys Pro Arg Gly Phe Ala Trp Leu
  1          5          10          15
Asp Gln Val Pro Ser Ser Ser Leu Ala Pro Gln Ser His Trp Glu Thr
          20          25          30
Leu Gln Ala Gln Ala His Thr Gly Pro Ala Ser Pro Ala Ala Leu Pro
          35          40          45
Lys Gly Asp Ala Cys Asp Cys Val Cys Leu Pro Thr Gly Val Thr Thr
          50          55          60
His Pro Arg Pro Pro Glu Pro Gln His Glu Gly Ser Ala Pro Phe Pro
65          70          75          80
His

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<210> 2825  
<211> 1520  
<212> DNA  
<213> Homo sapiens

<400> 2825  
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120  
gatggacatg tagaggtggc acgtttgctt ttggatagtg gtgctcaagt gaacatgcct  
180  
gcagattcat ttgaatctcc attgacgcta gctgcctgtg gaggacatgt tgaattggca  
240  
gctctactta ttgaaagggg agcaaactct gaagaagtta atgatgaagg atacactccc  
300  
ttgatggaag cagctcgaga aggacatgaa gaaatggtgg cattacttct tagcacaagg  
360  
agcnaaatat caatgcacag acagaagaaa ctcaagaaac tgctcttgac tctggcttgc  
420  
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480  
gggtgttcta cccctttaat ggaagctgct caagagggtc atttggagtt agttaaatc  
540  
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600  
tatgcctgtg aaaatggcca tactgatgta gcagatgtct tacttcaggc aggcgcagat  
660  
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720  
gaacatgaat ctgaagggtg aagaactcct ttaatgaaag ctgcaagagc tggatcatgtt  
780  
tgtactgttc agttcttaat tagtaaagga gcgaatgtga atagaaccac agctaataat  
840  
gaccatactg tactgtccct ggcttgtgca ggggggtcatc tggcagtggg ggaactactt  
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960  
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1020  
ctttcagccc ctccaccaga tgtcactcag ttaactcccc catcccacga tttaaatagg  
1080  
gtcctctgtg taccagttca agcactgccc atggttgttc cacctcagga gcctgacaaa  
1140  
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1200  
tccagcagcc atttgccagc aaacagccag gatgtacagg gttacatcac caatcagtc  
1260  
ccagagagca ttgtagaaga ggctcaggga aagttaacag aactggaaca gaggataaaa  
1320  
gaagccatag aaaagaatgc acagctgcag tccttggaaac tggctcatgc tgaccaactt  
1380  
accaaggaga agatcgagga gctcaacaaa acaaggaggg aacaaattca gaagaaacaa  
1440

aagatttttg aggaactaca gaaagtagaa cgagagttac aactgaaaac tcagcagcag  
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ctaaaaaagc agtatctaga  
1520

<210> 2826

<211> 506

<212> PRT

<213> Homo sapiens

<400> 2826

Cys	Leu	Thr	Leu	Ala	Cys	Tyr	Lys	Gly	His	Leu	Asp	Met	Val	Arg	Phe
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Leu	Leu	Glu	Ala	Gly	Ala	Asp	Gln	Glu	His	Lys	Thr	Asp	Glu	Met	His
		20						25					30		
Thr	Ala	Leu	Met	Glu	Ala	Cys	Met	Asp	Gly	His	Val	Glu	Val	Ala	Arg
	35						40					45			
Leu	Leu	Leu	Asp	Ser	Gly	Ala	Gln	Val	Asn	Met	Pro	Ala	Asp	Ser	Phe
50					55					60					
Glu	Ser	Pro	Leu	Thr	Leu	Ala	Ala	Cys	Gly	Gly	His	Val	Glu	Leu	Ala
65					70				75						80
Ala	Leu	Leu	Ile	Glu	Arg	Gly	Ala	Asn	Leu	Glu	Glu	Val	Asn	Asp	Glu
			85					90					95		
Gly	Tyr	Thr	Pro	Leu	Met	Glu	Ala	Ala	Arg	Glu	Gly	His	Glu	Glu	Met
			100					105					110		
Val	Ala	Leu	Leu	Leu	Ser	Thr	Arg	Ser	Xaa	Ile	Ser	Met	His	Arg	Gln
	115						120					125			
Lys	Lys	Leu	Lys	Lys	Leu	Leu	Leu	Thr	Leu	Ala	Cys	Cys	Gly	Gly	Phe
130						135					140				
Leu	Glu	Val	Ala	Asp	Phe	Leu	Ile	Lys	Ala	Gly	Ala	Asp	Ile	Glu	Leu
145					150					155					160
Gly	Cys	Ser	Thr	Pro	Leu	Met	Glu	Ala	Ala	Gln	Glu	Gly	His	Leu	Glu
				165				170						175	
Leu	Val	Lys	Tyr	Leu	Leu	Ala	Ala	Gly	Ala	Asn	Val	His	Ala	Thr	Thr
			180					185					190		
Ala	Thr	Gly	Asp	Thr	Ala	Leu	Thr	Tyr	Ala	Cys	Glu	Asn	Gly	His	Thr
	195						200					205			
Asp	Val	Ala	Asp	Val	Leu	Leu	Gln	Ala	Gly	Ala	Asp	Leu	Asp	Lys	Gln
210						215					220				
Glu	Asp	Met	Lys	Thr	Ile	Leu	Glu	Gly	Ile	Asp	Pro	Ala	Lys	His	Leu
225					230					235					240
Glu	His	Glu	Ser	Glu	Gly	Gly	Arg	Thr	Pro	Leu	Met	Lys	Ala	Ala	Arg
				245					250					255	
Ala	Gly	His	Val	Cys	Thr	Val	Gln	Phe	Leu	Ile	Ser	Lys	Gly	Ala	Asn
			260					265					270		
Val	Asn	Arg	Thr	Thr	Ala	Asn	Asn	Asp	His	Thr	Val	Leu	Ser	Leu	Ala
		275					280					285			
Cys	Ala	Gly	Gly	His	Leu	Ala	Val	Val	Glu	Leu	Leu	Leu	Ala	His	Gly
290						295					300				
Ala	Asp	Pro	Thr	His	Arg	Leu	Lys	Asp	Gly	Ser	Thr	Met	Leu	Ile	Glu
305					310					315					320
Ala	Ala	Lys	Gly	Gly	His	Thr	Ser	Val	Val	Cys	Tyr	Leu	Leu	Asp	Tyr
				325					330					335	
Pro	Asn	Asn	Leu	Leu	Ser	Ala	Pro	Pro	Pro	Asp	Val	Thr	Gln	Leu	Thr

```

          340          345          350
Pro Pro Ser His Asp Leu Asn Arg Ala Pro Arg Val Pro Val Gln Ala
          355          360          365
Leu Pro Met Val Val Pro Pro Gln Glu Pro Asp Lys Pro Pro Ala Asn
          370          375          380
Val Ala Thr Thr Leu Pro Ile Arg Asn Lys Ala Ala Ser Lys Gln Lys
385          390          395          400
Ser Ser Ser His Leu Pro Ala Asn Ser Gln Asp Val Gln Gly Tyr Ile
          405          410          415
Thr Asn Gln Ser Pro Glu Ser Ile Val Glu Glu Ala Gln Gly Lys Leu
          420          425          430
Thr Glu Leu Glu Gln Arg Ile Lys Glu Ala Ile Glu Lys Asn Ala Gln
          435          440          445
Leu Gln Ser Leu Glu Leu Ala His Ala Asp Gln Leu Thr Lys Glu Lys
          450          455          460
Ile Glu Glu Leu Asn Lys Thr Arg Glu Glu Gln Ile Gln Lys Lys Gln
465          470          475          480
Lys Ile Leu Glu Glu Leu Gln Lys Val Glu Arg Glu Leu Gln Leu Lys
          485          490          495
Thr Gln Gln Gln Leu Lys Lys Gln Tyr Leu
          500          505

```

&lt;210&gt; 2827

&lt;211&gt; 481

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2827

```

cgggaggcag ctgctgccgc aggagatgct tcagaggatt cggacgcagg gtccagggcg
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120
ctgctgcacc tgtgtgtcca gcagcctctt cagctgctgc aggtggaatt cttgcgtctg
180
aacactcacg aagacctca actgctggag gccaccttg cccagctgcc tcaaaacctg
240
tctgcctcc gctccctggt cctcaaaaga gggcaacgcc gggacacact gggtgacctg
300
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360
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420
ctgggtgcgc tcttctgttc tcacaactgc ctctctgagc tgctgaggc tctggggggc
480
c
481

```

&lt;210&gt; 2828

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2828

```

Arg Glu Ala Ala Ala Ala Gly Asp Ala Ser Glu Asp Ser Asp Ala

```



1	5	10	15
Gly Ser Arg Ala Leu Pro Phe Leu Gly Gly Asn Arg Leu Ser Leu Asp			
20	25	30	
Leu Tyr Pro Gly Gly Cys Gln Gln Leu Leu His Leu Cys Val Gln Gln			
35	40	45	
Pro Leu Gln Leu Leu Gln Val Glu Phe Leu Arg Leu Asn Thr His Glu			
50	55	60	
Asp Pro Gln Leu Leu Glu Ala Thr Leu Ala Gln Leu Pro Gln Asn Leu			
65	70	75	80
Ser Cys Leu Arg Ser Leu Val Leu Lys Arg Gly Gln Arg Arg Asp Thr			
85	90	95	
Leu Gly Ala Cys Leu Arg Gly Ala Leu Thr Asn Leu Pro Ala Gly Leu			
100	105	110	
Ser Gly Leu Ala His Leu Ala His Leu Asp Leu Ser Phe Asn Ser Leu			
115	120	125	
Glu Thr Leu Pro Ala Cys Val Leu Gln Met Arg Gly Leu Gly Ala Leu			
130	135	140	
Leu Leu Ser His Asn Cys Leu Ser Glu Leu Pro Glu Ala Leu Gly Ala			
145	150	155	160

&lt;210&gt; 2829

&lt;211&gt; 3648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2829

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120
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180
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360
caacttacct agcaaatacca cttttttcgc ctttaagaat acgttttcat tgaattccta
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480
gtaagctcag atggaaagag acctttggga tttcatttta ttatgtttta tatatgtttt
540
aatacctttt cacagattta aatccccagg gtgaatactc ctttctttgt tagtacctgg
600
cgtgtgttca gtagtcaaag taattaaaat tagcacctat ataatgagct tgtcattttt
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aatgttcttt accaaccaga atcctaataga agtctaaaag gtttaggctg ggcacgttgg
720
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900

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 1020  
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 1080  
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 3648

&lt;210&gt; 2830

&lt;211&gt; 668

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2830

Met	Val	Met	Glu	Phe	Pro	Asp	Asn	Val	Leu	Asn	Leu	Asp	Gly	His	Gln
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Asn	Asn	Gly	Ala	Gln	Leu	Lys	Gln	Phe	Ile	Gln	Arg	His	Gly	Met	Leu
			20					25					30		
Lys	Gln	Gln	Asp	Leu	Ser	Ile	Ala	Met	Val	Val	Thr	Ser	Arg	Glu	Val
		35					40					45			
Leu	Ser	Ala	Leu	Ser	Gln	Leu	Val	Pro	Cys	Val	Gly	Cys	Arg	Arg	Ser
	50					55				60					
Val	Glu	Arg	Leu	Phe	Ser	Gln	Leu	Val	Glu	Ser	Gly	Asn	Pro	Ala	Leu

65					70					75					80
Glu	Pro	Leu	Thr	Val	Gly	Pro	Lys	Gly	Val	Leu	Ser	Val	Thr	Arg	Ser
				85					90					95	
Cys	Met	Thr	Asp	Ala	Lys	Lys	Leu	Tyr	Thr	Leu	Phe	Tyr	Val	His	Gly
			100					105					110		
Ser	Lys	Leu	Asn	Asp	Met	Ile	Asp	Ala	Ile	Pro	Lys	Ser	Lys	Lys	Asn
		115					120					125			
Lys	Arg	Cys	Gln	Leu	His	Ser	Leu	Asp	Thr	His	Lys	Pro	Lys	Pro	Leu
	130					135					140				
Gly	Gly	Cys	Trp	Met	Asp	Val	Trp	Glu	Leu	Met	Ser	Gln	Glu	Cys	Arg
145				150					155					160	
Asp	Glu	Val	Val	Leu	Ile	Asp	Ser	Ser	Cys	Leu	Leu	Glu	Thr	Leu	Glu
			165					170						175	
Thr	Tyr	Leu	Arg	Lys	His	Arg	Phe	Cys	Thr	Asp	Cys	Lys	Asn	Lys	Val
		180					185						190		
Leu	Arg	Ala	Tyr	Asn	Ile	Leu	Ile	Gly	Glu	Leu	Asp	Cys	Ser	Lys	Glu
	195					200					205				
Lys	Gly	Tyr	Cys	Ala	Ala	Leu	Tyr	Glu	Gly	Leu	Arg	Cys	Cys	Pro	His
	210					215					220				
Glu	Arg	His	Ile	His	Val	Cys	Cys	Glu	Thr	Asp	Phe	Ile	Ala	His	Leu
225				230						235				240	
Leu	Gly	Arg	Ala	Glu	Pro	Glu	Phe	Ala	Gly	Gly	Tyr	Glu	Arg	Arg	Glu
			245					250						255	
Arg	His	Ala	Lys	Thr	Ile	Asp	Ile	Ala	Gln	Glu	Glu	Val	Leu	Thr	Cys
	260						265						270		
Leu	Gly	Ile	His	Leu	Tyr	Glu	Arg	Leu	His	Arg	Ile	Trp	Gln	Lys	Leu
	275					280						285			
Arg	Ala	Glu	Glu	Gln	Thr	Trp	Gln	Met	Leu	Phe	Tyr	Leu	Gly	Val	Asp
	290					295					300				
Ala	Leu	Arg	Lys	Ser	Phe	Glu	Met	Thr	Val	Glu	Lys	Val	Gln	Gly	Ile
305				310						315				320	
Ser	Arg	Leu	Glu	Gln	Leu	Cys	Glu	Glu	Phe	Ser	Glu	Glu	Glu	Arg	Val
			325					330						335	
Arg	Glu	Leu	Lys	Gln	Glu	Lys	Lys	Arg	Gln	Lys	Arg	Lys	Asn	Arg	Arg
	340						345						350		
Lys	Asn	Lys	Cys	Val	Cys	Asp	Ile	Pro	Thr	Pro	Leu	Gln	Thr	Ala	Asp
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&lt;210&gt; 2831

&lt;211&gt; 3986

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2831

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 <211> 611  
 <212> PRT  
 <213> Homo sapiens

<400> 2832  
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 Gly Pro Ala Leu Lys Arg Ser Phe Glu Val Glu Glu Val Glu Thr Pro  
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 Asn Ser Thr Pro Pro Arg Arg Val Gln Thr Pro Leu Leu Arg Ala Thr  
 65 70 75 80  
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 85 90 95  
 Glu Pro Ser Ala Arg His Val Asp Ser Leu Ser Gln Arg Ser Pro Lys  
 100 105 110  
 Ala Ser Leu Arg Arg Val Glu Leu Ser Gly Pro Lys Ala Ala Glu Pro  
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 130 135 140  
 Glu Asn Ala Gly Ala Ile Gly Pro Ser Arg Phe Gly Leu Lys Arg Ala  
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 Glu Val Leu Gly His Lys Thr Pro Glu Pro Ala Pro Arg Arg Thr Glu  
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 210 215 220  
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 245 250 255  
 Ala Glu Ala Thr Pro Arg Ser Gln Glu Ala Thr Glu Ala Ala Pro Ser  
 260 265 270  
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 290 295 300  
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 Gly Phe Glu Phe Asn Ile Met Val Val Gly Gln Ser Gly Leu Gly Lys  
 325 330 335  
 Ser Thr Leu Ile Asn Thr Leu Phe Lys Ser Lys Ile Ser Arg Lys Ser  
 340 345 350  
 Val Gln Pro Thr Ser Glu Glu Arg Ile Pro Lys Thr Ile Glu Ile Lys  
 355 360 365  
 Ser Ile Thr His Asp Ile Glu Glu Lys Gly Val Arg Met Lys Leu Thr



370	375	380
Val Ile Asp Thr Pro Gly Phe Gly Asp His Ile Asn Asn Glu Asn Cys		
385	390	395
Trp Gln Pro Ile Met Lys Phe Ile Asn Asp Gln Tyr Glu Lys Tyr Leu		400
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Gln Glu Glu Val Asn Ile Asn Arg Lys Lys Arg Ile Pro Asp Thr Arg		415
	420	425
Val His Cys Cys Leu Tyr Phe Ile Pro Ala Thr Gly His Ser Leu Arg		430
	435	440
Pro Leu Asp Ile Glu Phe Met Lys Arg Leu Ser Lys Val Val Asn Ile		445
	450	455
Val Pro Val Ile Ala Lys Ala Asp Thr Leu Thr Leu Glu Glu Arg Val		460
465	470	475
His Phe Lys Gln Arg Ile Thr Ala Asp Leu Leu Ser Asn Gly Ile Asp		480
	485	490
Val Tyr Pro Gln Lys Glu Phe Asp Glu Asp Ser Glu Asp Arg Leu Val		495
	500	505
Asn Glu Lys Phe Arg Glu Met Ile Pro Phe Ala Val Val Gly Ser Asp		510
	515	520
His Glu Tyr Gln Val Asn Gly Lys Arg Ile Leu Gly Arg Lys Thr Lys		525
	530	535
Trp Gly Thr Ile Glu Val Glu Asn Thr Thr His Cys Glu Phe Ala Tyr		540
545	550	555
Leu Arg Asp Leu Leu Ile Arg Thr His Met Gln Asn Ile Lys Asp Ile		560
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Thr Ser Ser Ile His Phe Glu Ala Tyr Arg Val Lys Arg Leu Asn Glu		575
	580	585
Gly Ser Ser Ala Met Ala Asn Gly Val Glu Glu Lys Glu Pro Glu Ala		590
	595	600
Pro Glu Met		605
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&lt;210&gt; 2833

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2833

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&lt;210&gt; 2834

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 <212> PRT  
 <213> Homo sapiens

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           20                  25                  30  
 Ser Gly Arg Asn Val Thr Thr Gly Ser Leu Gly Glu Pro Gln Trp Leu  
           35                  40                  45  
 Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser  
           50                  55                  60  
 Gly Arg Gly Ala Ala Thr Gly Gly Arg Gln Gly Gly Arg Phe Asp Thr  
 65                  70                  75                  80  
 Lys Cys Leu Ala Ala Ala Thr Trp Gly Arg Leu Pro Gly Pro Glu Glu  
                   85                  90                  95  
 Thr Leu Pro Gly Gln Asp Ser Trp Asn Gly Val Pro Ser Arg Ala Gly  
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 Leu Gly Met Cys Ala  
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<210> 2835  
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 <213> Homo sapiens

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 50 55 60  
 Ala Leu Gly Arg Ala Val Gly Gln Trp Ala Gly Ala Lys Leu Leu Asp  
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 Glu Glu Asn Arg Asp Lys Leu Asp His Cys Leu Gln Glu Ala Ser Pro  
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 Arg Tyr Lys Ser Leu Arg Phe Trp Gly Ser Val Gly Pro Ala Glu Ser  
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<210> 2837  
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 <212> DNA  
 <213> Homo sapiens

<400> 2837  
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&lt;210&gt; 2838

&lt;211&gt; 370

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2838

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Lys	Gln	Arg	Ala	Glu	Asn	Thr	Gln	Glu	Glu	Leu	Arg	Glu	Phe	Gln	Glu
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Gly	Ser	Arg	Glu	Tyr	Glu	Ala	Glu	Leu	Glu	Thr	Gln	Leu	Gln	Gln	Ile
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Glu	Thr	Arg	Asn	Arg	Asp	Leu	Leu	Ser	Glu	Asn	Asn	Arg	Leu	Arg	Met
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      145              150              155              160
Phe Glu Gln Arg Leu Asn Gln Ala Ile Glu Arg Asn Ala Phe Leu Glu
      165              170              175
Ser Glu Leu Asp Glu Lys Glu Asn Leu Leu Glu Ser Val Gln Arg Leu
      180              185              190
Lys Asp Glu Ala Arg Asp Leu Arg Gln Glu Leu Ala Val Gln Gln Lys
      195              200              205
Gln Glu Lys Pro Arg Thr Pro Met Pro Ser Ser Val Glu Ala Glu Arg
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Thr Asp Thr Ala Val Gln Ala Thr Gly Ser Val Pro Ser Thr Pro Ile
      225              230              235              240
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Arg Gly Leu Asp Asp Xaa His Arg Gly Thr Pro Leu Thr Pro Ala Ala
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Arg Ile Ser Ala Leu Asn Ile Val Gly Asp Leu Leu Arg Lys Val Gly
      275              280              285
Ala Leu Glu Ser Lys Leu Ala Ser Cys Arg Asn Leu Val Tyr Asp Gln
      290              295              300
Ser Pro Asn Arg Thr Gly Gly Pro Ala Ser Gly Arg Ser Ser Lys Asn
      305              310              315              320
Arg Asp Gly Gly Glu Arg Arg Pro Ser Ser Thr Ser Val Pro Leu Gly
      325              330              335
Asp Lys Gly Ser Val Pro Ser Asn Lys Pro Leu Ala Gly Gly Glu Asn
      340              345              350
Pro Pro Ala Pro Gly Lys Arg His Ser Pro Pro Ala His Ser His Val
      355              360              365
Ser Phe
      370

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&lt;210&gt; 2839

&lt;211&gt; 606

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2839

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360
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420

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<210> 2840

<211> 202

<212> PRT

<213> Homo sapiens

<400> 2840

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		20						25					30		
Ala	Thr	Asn	Gly	Asp	Pro	Arg	Asn	Ser	Cys	Ser	Leu	His	Tyr	Ile	His
		35					40					45			
Pro	Tyr	Gln	Pro	Asn	Glu	Tyr	Leu	Lys	Ala	Leu	Val	Ala	Val	Gly	Glu
	50					55				60					
Ile	Cys	Gln	Asp	Tyr	Asp	Ser	Asp	Lys	Met	Phe	Pro	Ala	Phe	Gly	Phe
65				70						75				80	
Gly	Ala	Arg	Ile	Pro	Pro	Glu	Tyr	Thr	Val	Ser	His	Asp	Phe	Ala	Ile
			85					90					95		
Asn	Phe	Asn	Glu	Asp	Asn	Pro	Glu	Cys	Ala	Gly	Ile	Gln	Gly	Val	Val
		100					105					110			
Glu	Ala	Tyr	Gln	Ser	Cys	Leu	Pro	Lys	Leu	Gln	Leu	Tyr	Gly	Pro	Thr
	115					120				125					
Asn	Ile	Ala	Pro	Ile	Ile	Gln	Lys	Val	Ala	Lys	Ser	Ala	Ser	Glu	Glu
	130				135					140					
Thr	Asn	Thr	Lys	Glu	Ala	Ser	Gln	Tyr	Phe	Ile	Leu	Leu	Ile	Leu	Thr
145				150						155				160	
Asp	Gly	Val	Ile	Thr	Asp	Met	Gly	Asp	Thr	Arg	Glu	Ala	Ile	Val	His
			165					170					175		
Ala	Ser	His	Leu	Pro	Met	Ser	Val	Ile	Ile	Val	Gly	Val	Gly	Asn	Ala
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Asp	Phe	Ser	Asp	Met	Gln	Met	Leu	Asp	Gly						
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<210> 2841

<211> 2065

<212> DNA

<213> Homo sapiens

<400> 2841

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240  
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660  
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720  
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1800

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 1920  
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 2040  
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<210> 2842

<211> 540

<212> PRT

<213> Homo sapiens

<400> 2842

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Ala	Leu	Gly	Ala	Glu	Gly	Ser	Asn	Ala	Glu	Ser	Leu	Asp	Arg	Leu	Leu
			20					25					30		
Pro	Pro	Val	Gly	Thr	Gly	Arg	Ser	Pro	Arg	Lys	Arg	Thr	Thr	Ser	Gln
		35					40					45			
Cys	Lys	Ser	Glu	Pro	Pro	Leu	Leu	Arg	Thr	Ser	Lys	Arg	Thr	Ile	Tyr
	50					55					60				
Thr	Ala	Gly	Arg	Pro	Pro	Trp	Tyr	Asn	Glu	His	Gly	Thr	Gln	Ser	Lys
65					70					75				80	
Glu	Ala	Phe	Ala	Ile	Gly	Leu	Gly	Gly	Gly	Ser	Ala	Ser	Gly	Lys	Thr
			85					90					95		
Thr	Val	Ala	Arg	Met	Ile	Ile	Glu	Ala	Leu	Asp	Val	Pro	Trp	Val	Val
			100					105				110			
Leu	Leu	Ser	Met	Asp	Ser	Phe	Tyr	Lys	Val	Leu	His	Ser	Leu	Pro	His
		115					120					125			
Gln	Val	Leu	Thr	Glu	Gln	Gln	Gln	Glu	Gln	Ala	Ala	His	Asn	Asn	Phe
		130				135					140				
Asn	Phe	Asp	His	Pro	Asp	Ala	Phe	Asp	Phe	Asp	Leu	Ile	Ile	Ser	Thr
145					150				155					160	
Leu	Lys	Lys	Leu	Lys	Gln	Gly	Lys	Ser	Val	Lys	Val	Pro	Ile	Tyr	Asp
			165					170					175		
Phe	Thr	Thr	His	Ser	Arg	Lys	Lys	Asp	Trp	Lys	Thr	Leu	Tyr	Gly	Ala
			180					185				190			
Asn	Val	Ile	Ile	Phe	Glu	Gly	Ile	Met	Ala	Phe	Ala	Asp	Lys	Thr	Leu
	195						200					205			
Leu	Glu	Leu	Leu	Asp	Met	Lys	Ile	Phe	Val	Asp	Thr	Asp	Ser	Asp	Ile
	210					215					220				
Arg	Leu	Val	Arg	Arg	Leu	Arg	Arg	Asp	Ile	Ser	Glu	Arg	Gly	Arg	Asp
225					230				235					240	
Ile	Glu	Gly	Val	Ile	Lys	Gln	Tyr	Asn	Lys	Phe	Val	Lys	Pro	Ser	Phe
			245					250					255		
Asp	Gln	Tyr	Ile	Gln	Pro	Thr	Met	Arg	Leu	Ala	Asp	Ile	Val	Val	Pro
		260					265					270			
Arg	Gly	Ser	Gly	Asn	Thr	Val	Ala	Ile	Asp	Leu	Ile	Val	Gln	His	Val
	275					280						285			
His	Ser	Gln	Leu	Glu	Glu	Arg	Glu	Leu	Ser	Val	Arg	Ala	Ala	Leu	Ala



290		295		300
Ser Ala His Gln Cys His Pro Leu Pro Arg Thr Leu Ser Val Leu Lys				
305		310		315
Ser Thr Pro Gln Val Arg Gly Met His Thr Ile Ile Arg Asp Lys Glu				
	325		330	335
Thr Ser Arg Asp Glu Phe Ile Phe Tyr Ser Lys Arg Leu Met Arg Leu				
	340		345	350
Leu Ile Glu His Ala Leu Ser Phe Leu Pro Phe Gln Asp Cys Val Val				
	355		360	365
Gln Thr Pro Gln Gly Gln Asp Tyr Ala Gly Lys Cys Tyr Ala Gly Lys				
	370		375	380
Gln Ile Thr Gly Val Ser Ile Leu Arg Ala Gly Glu Thr Met Glu Pro				
385		390		395
Ala Leu Arg Ala Val Cys Lys Asp Val Arg Ile Gly Thr Ile Leu Ile				
	405		410	415
Gln Thr Asn Gln Leu Thr Gly Glu Pro Glu Leu His Tyr Leu Arg Leu				
	420		425	430
Pro Lys Asp Ile Ser Asp Asp His Val Ile Leu Met Asp Cys Thr Val				
	435		440	445
Ser Thr Gly Ala Ala Ala Met Met Ala Val Arg Val Leu Leu Asp His				
	450		455	460
Asp Val Pro Glu Asp Lys Ile Phe Leu Leu Ser Leu Leu Met Ala Glu				
465		470		475
Met Gly Val His Ser Val Ala Tyr Ala Phe Pro Arg Val Arg Ile Ile				
	485		490	495
Thr Thr Ala Val Asp Lys Arg Val Asn Asp Leu Phe Arg Ile Ile Pro				
	500		505	510
Gly Ile Gly Asn Phe Gly Asp Arg Tyr Phe Gly Thr Asp Ala Val Pro				
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Asp Gly Ser Asp Glu Glu Glu Val Ala Tyr Thr Gly				
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&lt;210&gt; 2843

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2843

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 120  
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 180  
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 240  
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 300  
 cccacagggg ccctgctgtc tacaccgcag tttgagatgc ttcagaatcc cctgggtctc  
 360  
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caggcatcca caccggt  
497

<210> 2844

<211> 165

<212> PRT

<213> Homo sapiens

<400> 2844

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Tyr	Glu	Pro	Arg	Ser	Pro	Gly	Tyr	Glu	Ser	Glu	Ser	Ser	Arg	Tyr	Glu
			20					25					30		
Ser	Gln	Asn	Thr	Glu	Leu	Lys	Thr	Gln	Ser	Pro	Glu	Phe	Glu	Ala	Gln
			35				40						45		
Ser	Ser	Lys	Phe	Gln	Glu	Gly	Ala	Glu	Met	Leu	Leu	Asn	Pro	Glu	Glu
			50				55					60			
Lys	Ser	Pro	Leu	Asn	Ile	Ser	Val	Gly	Val	His	Pro	Leu	Asp	Ser	Phe
65					70					75				80	
Thr	Gln	Gly	Phe	Gly	Glu	Gln	Pro	Thr	Gly	Asp	Leu	Pro	Ile	Gly	Pro
			85						90					95	
Pro	Phe	Glu	Met	Pro	Thr	Gly	Ala	Leu	Leu	Ser	Thr	Pro	Gln	Phe	Glu
			100					105					110		
Met	Leu	Gln	Asn	Pro	Leu	Gly	Leu	Thr	Gly	Ala	Leu	Arg	Gly	Pro	Gly
		115					120					125			
Arg	Arg	Gly	Gly	Arg	Ala	Arg	Gly	Gly	Gln	Gly	Pro	Arg	Pro	Asn	Ile
		130				135					140				
Cys	Gly	Ile	Trp	Gly	Lys	Ser	Phe	Gly	Arg	Asp	Tyr	Pro	Asp	Pro	Ala
145					150					155				160	
Gln	Ala	Ser	Thr	Pro											
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<210> 2845

<211> 934

<212> DNA

<213> Homo sapiens

<400> 2845

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120  
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240  
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480

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 600  
 cgagagtccc ttgtggcacc tcatgggcat cgggtcaaagc cgtcatgacc ccgaggatgt  
 660  
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 780  
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 ctgttgtcat agggctgttt gccttgtgtt tcgtggagcc ccattgctga gcttacaacg  
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 934

<210> 2846

<211> 149

<212> PRT

<213> Homo sapiens

<400> 2846

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Leu	Pro	Cys	Pro	Leu	Gly	Ser	Gly	Arg	Leu	Trp	Leu	Met	Pro	Thr	Arg
			20					25						30	
Cys	His	Lys	Gly	Leu	Ser	Asp	Arg	Cys	Ser	Pro	Ser	Leu	Pro	Cys	Leu
		35					40					45			
Pro	His	Arg	Pro	Ser	Pro	Pro	Glu	Pro	Ala	Phe	Leu	Pro	Gln	His	Leu
		50				55					60				
Pro	Ser	Leu	Ala	Thr	Gly	Tyr	Ile	Cys	Val	Asp	Cys	Leu	Ser	Leu	His
65					70					75				80	
Gly	Asn	Val	Arg	Thr	Ile	Phe	Val	Cys	Cys	Gly	Thr	Ala	Ala	Leu	Arg
			85						90					95	
Ala	Ala	Ser	Ser	Thr	Gln	Val	Ala	Leu	Asp	Thr	Asp	Cys	Thr	Gln	Gly
			100					105					110		
Glu	Leu	Gly	Leu	Ile	Thr	Pro	Leu	Thr	Arg	Gly	Glu	Thr	Leu	Gln	Leu
		115					120					125			
Glu	Val	Thr	Phe	Ile	Pro	Leu	Gln	Leu	Arg	Pro	Phe	His	Ser	Pro	Arg
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Thr	His	Arg	Gly	Ala											
145															

<210> 2847

<211> 2830

<212> DNA

<213> Homo sapiens

<400> 2847

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cagctctcac atgaccacga atctgttggc cctcctagcc tggatgctca gcccaactca  
180  
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240  
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360  
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720  
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1020  
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1440  
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1620  
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 1800  
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 1860  
 gatgaactgg acaatgtatt ttttaagaaa gaaaatgtgg aacagtgtca caatgatact  
 1920  
 aaagaggagt ccaaaaaaga aagtgagaca ctgggcagaa aacagaagat catcattgcc  
 1980  
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 2700  
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&lt;210&gt; 2848

&lt;211&gt; 856

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2848

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 Thr Ser Ala Pro Leu Ile Arg Arg Gln Leu Ser His Asp His Glu Ser  
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 Ser Lys Ser Tyr Asp Glu Gly Leu Asp Asp Tyr Arg Glu Asp Ala Lys

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Ser	Gln	Lys	Ser	Ser	Glu	Asp	Ser	Gly	Ser	Arg	Lys	Asp	Ser	Ser	Ser
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Thr Gly Val Ser Pro Gly Asp Val Ser Asp Ser Ala Thr Ser Asp Ser
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Glu Leu Leu Val Ser Ser Ile Phe Ala Ala Ala Ser Arg Lys Arg Lys
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Lys Pro Lys Glu Lys Ala Gln Pro Ser Ser Ser Glu Asp Glu Leu Asp
      610      615      620
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Lys Asp Glu Lys Ile Ser Leu Gly Lys Glu Ser Thr Pro Ser Glu Glu
      675      680      685
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Thr Ser Pro Glu Thr Lys His Ser Glu Phe Leu Ala Asn Val Ser Thr
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785      790      795      800
Lys Gly Asp Glu Ala Asp Asp Glu Arg Ser Glu Leu Ile Ser Glu Gly
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Arg Pro Val Glu Thr Asp Ser Gly Asn Glu Phe Pro Ile Phe Pro Thr
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Ala Leu Thr Ser Glu Arg Leu Phe Arg Gly Glu Leu Gln Lys Val Thr
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&lt;210&gt; 2849

&lt;211&gt; 380

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2849

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<210> 2850

<211> 76

<212> PRT

<213> Homo sapiens

<400> 2850

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			20					25				30			
Glu	Glu	Asp	Lys	Lys	Asp	Gly	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys
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Ala	Val	Gln	Asp	His	Lys	Glu	Pro	Ser	Asp	Lys	Pro	Gln	Lys	Ala	Val
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<210> 2851

<211> 2459

<212> DNA

<213> Homo sapiens

<400> 2851

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<210> 2852

<211> 317

<212> PRT

<213> Homo sapiens

<400> 2852

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Leu	Tyr	Met	Leu	Val	Lys	Met	Ser	His	His	Val	Trp	Thr	Ala	Gln	Asn	35	40	45	
Val	Asp	Pro	Ala	Ser	Phe	Leu	Ser	Thr	Thr	Leu	Gly	Asn	Val	Leu	Val	50	55	60	
Thr	Val	Lys	Arg	Asn	Phe	Asp	Lys	Cys	Ile	Ser	Asn	Gln	Ile	Arg	Gln	65	70	75	80
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Lys	Asn	Ala	Glu	Arg	Arg	Gly	Asp	Leu	Asp	Lys	Ala	Tyr	Thr	Lys	Leu	115	120	125	
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Lys	His	Leu	Cys	Glu	Glu	Glu	Asn	Leu	Leu	Gln	Val	Val	Trp	His	Ser	260	265	270	
Met	Gln	Asp	Glu	Phe	Ile	Arg	Gln	Tyr	Lys	His	Phe	Glu	Gly	Leu	Ile	275	280	285	
Ala	Arg	Cys	Tyr	Pro	Gly	Ser	Gly	Val	Thr	Met	Glu	Phe	Thr	Ile	Gln				

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&lt;210&gt; 2853

&lt;211&gt; 4993

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2853

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<212> PRT

<213> Homo sapiens

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&lt;210&gt; 2856

&lt;211&gt; 401

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2856

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Pro	Thr	Thr	Asp	Val	Ser	Ala	Gly	Glu	Asn	Gly	Gly	Ser	Ser	Ser	Cys																			
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&lt;210&gt; 2858

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2858

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			20					25						30	
Pro	Glu	Cys	Ser	Val	Lys	Gly	Arg	Thr	Glu	Ser	Phe	His	Cys	Pro	Pro
		35					40					45			
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      85              90              95
Asp Cys Cys Tyr Ser Asp Asp Gly Pro Thr Thr Glu Gly Ile Asp Leu
      100             105             110
Asn Asp Pro Ala Ile Lys Gln Asp Ala Leu Leu Leu Glu Arg Trp Ile
      115             120             125
Leu Glu Pro Val Pro Arg Gln Asn Gly Asp Arg Phe Ile Glu Glu Lys
      130             135             140
Thr Leu Leu Leu Ala Val Arg Ser Phe Val Phe Phe Ser Gln Leu Ser
145             150             155             160
Ala Trp Leu Ser Val Ser His Gly Ala Ile Pro Arg Asn Ile Leu Tyr
      165             170             175
Arg Ile Ser Ala Ala Asp Val Asp Leu Gln Trp Asn Phe Ser Gln Thr
      180             185             190
Pro Ile Glu His Val Phe Pro Val Pro Asn Val Ser His Asn Val Ala
      195             200             205
Leu Lys Val Ser Gly Gln Ser Leu Ala Gln Thr Ile
      210             215             220

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&lt;210&gt; 2859

&lt;211&gt; 1029

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2859

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180
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240
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300
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780

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<210> 2860

<211> 343

<212> PRT

<213> Homo sapiens

<400> 2860

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			20					25					30		
Asp	Ile	Ser	Ala	Arg	Lys	Met	Ala	His	Pro	Ala	Met	Phe	Pro	Arg	Arg
		35					40					45			
Gly	Ser	Gly	Ser	Gly	Ser	Ala	Ser	Ala	Leu	Asn	Ala	Ala	Gly	Thr	Gly
	50					55					60				
Val	Gly	Ser	Asn	Ala	Thr	Ser	Ser	Glu	Asp	Phe	Pro	Pro	Pro	Ser	Leu
65					70					75				80	
Leu	Gln	Pro	Pro	Pro	Pro	Ala	Ala	Ser	Ser	Thr	Ser	Gly	Pro	Gln	Pro
				85					90					95	
Pro	Pro	Pro	Gln	Ser	Leu	Asn	Leu	Leu	Ser	Gln	Ala	Gln	Leu	Gln	Ala
			100					105					110		
Gln	Pro	Leu	Ala	Pro	Gly	Gly	Thr	Gln	Met	Lys	Lys	Lys	Ser	Gly	Phe
	115						120					125			
Gln	Ile	Thr	Ser	Val	Thr	Pro	Ala	Gln	Ile	Ser	Ala	Ser	Ile	Ser	Ser
	130						135				140				
Asn	Asn	Ser	Ile	Ala	Glu	Asp	Thr	Glu	Ser	Tyr	Asp	Asp	Leu	Asp	Glu
145					150					155				160	
Ser	His	Thr	Glu	Asp	Leu	Ser	Ser	Ser	Glu	Ile	Leu	Asp	Val	Ser	Leu
			165						170					175	
Ser	Arg	Ala	Thr	Asp	Leu	Gly	Glu	Pro	Glu	Arg	Ser	Ser	Ser	Glu	Glu
			180					185						190	
Thr	Leu	Asn	Asn	Phe	Gln	Glu	Ala	Glu	Thr	Pro	Gly	Ala	Val	Ser	Pro
	195						200					205			
Asn	Gln	Pro	His	Leu	Pro	Gln	Pro	His	Leu	Pro	His	Leu	Pro	Gln	Gln
	210					215					220				
Asn	Val	Val	Ile	Asn	Gly	Asn	Ala	His	Pro	His	His	Leu	His	His	His
225					230					235				240	
His	Gln	Ile	His	His	Gly	His	His	Leu	Gln	His	Gly	His	His	His	Pro
			245						250					255	
Ser	His	Val	Ala	Val	Ala	Ser	Ala	Ser	Ile	Thr	Gly	Gly	Pro	Pro	Ser
			260					265					270		
Ser	Pro	Val	Ser	Arg	Lys	Leu	Ser	Thr	Thr	Gly	Ser	Ser	Asp	Ser	Ile
	275						280					285			
Thr	Pro	Val	Ala	Pro	Thr	Ser	Ala	Val	Ser	Ser	Ser	Gly	Ser	Pro	Ala

290                      295                      300  
 Ser Val Met Thr Asn Met Arg Ala Pro Ser Thr Thr Gly Gly Ile Gly  
 305                      310                      315                      320  
 Ile Asn Ser Val Thr Gly Thr Ser Thr Val Asn Asn Val Asn Ile Thr  
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 Ala Val Gly Ser Phe Asn Ser  
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 <211> 756  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
 aaaaaactag attctactca gactacacat tcttcaagtc ttattgctgg tcacacaggg  
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 420  
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 540  
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 600  
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 660  
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<210> 2862  
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 <212> PRT  
 <213> Homo sapiens

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                     20                      25                      30  
 Ser Glu Ala Leu Ala Val Ile Asn Asn Gly Asn Lys Gly Pro Pro Val  
                     35                      40                      45  
 Gly Ser Arg Ile Ser Met Pro Thr Thr Lys Pro Arg Pro Gly Leu Arg

50	55	60
Glu Glu Lys Leu Ala Ser Ile Met Ser Lys Leu Pro Leu Ala Thr Pro		
65	70	75
Lys Lys Leu Asp Ser Thr Gln Thr Thr His Ser Ser Ser Leu Ile Ala		80
	85	90
Gly His Thr Gly Pro Val Pro Lys Lys Pro Gln Asp Leu Ala His Thr		95
	100	105
Gly Ile Ser Ser Gly Leu Ile Ala Gly Ser Ser Ile Gln Asn Pro Lys		110
	115	120
Val Ser Leu Glu Pro Leu Pro Ala Arg Leu Leu Gln Gln Gly Leu Gln		125
	130	135
Arg Ser Ser Gln Ile His Thr Ser Ser Ser Ser Gln Thr His Val Ser		140
145	150	155
Ser Ser Ser Gln Ala Gln Ile Ala Ala Ser Ser His Ala Leu Gly Thr		160
	165	170
Ser Glu Ala Gln Asp Ala Ser Ser Leu Thr Gln Val Thr Lys Val His		175
	180	185
Gln His Ser Ala Val Gln Gln Asn Tyr Val Ser Pro Leu Gln Ala Thr		190
	195	200
Ile Ser Lys Ser Gln Thr Asn Pro Val Val Lys Leu Ser Asn Asn Pro		205
	210	215
Gln Leu Ser Cys Ser Ser Ser Leu Ile Lys Thr Ser Asp Lys Pro Leu		220
225	230	235
Met Tyr Arg Leu Pro Leu Ser Thr Pro Phe Thr Arg		240
	245	250

&lt;210&gt; 2863

&lt;211&gt; 711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2863

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180  
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240  
actgcatgtt actgccacca caaacatctc tgttgttcct catcgtacat tcctcagagt  
300  
cgactgagat acacacctca tccagcatat gctacctttt gcaggccaaa ggagaactgg  
360  
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420  
ccaaagtca atagcatcct taaagctaata gaatacagtt tcaaagtgcc agaatttgac  
480  
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540  
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600  
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660



attgctgtct ctttggtacc ccatgagact ttgctagaga ttgaaaatgc a  
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<210> 2864

<211> 237

<212> PRT

<213> Homo sapiens

<400> 2864

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Cys	Val	Glu	Arg	Ala	Pro	Ser	Gly	Gly	Val	Val	Val	Ala	Pro	Ser	Ser
			20					25					30		
Ser	Gly	Arg	Ile	Val	Trp	Ser	Pro	Ala	Val	Pro	Gly	Ile	Pro	Val	Arg
			35				40					45			
Ser	Ser	Ser	Leu	Pro	Leu	Phe	Ser	Asp	Ala	Met	Pro	Ala	Pro	Thr	Gln
	50					55					60				
Leu	Phe	Phe	Pro	Leu	Ile	Arg	Asn	Cys	Glu	Leu	Ser	Arg	Ile	Tyr	Gly
65					70					75				80	
Thr	Ala	Cys	Tyr	Cys	His	His	Lys	His	Leu	Cys	Cys	Ser	Ser	Ser	Tyr
				85					90					95	
Ile	Pro	Gln	Ser	Arg	Leu	Arg	Tyr	Thr	Pro	His	Pro	Ala	Tyr	Ala	Thr
			100					105					110		
Phe	Cys	Arg	Pro	Lys	Glu	Asn	Trp	Trp	Gln	Tyr	Thr	Gln	Gly	Arg	Arg
		115				120						125			
Tyr	Ala	Ser	Thr	Pro	Gln	Lys	Phe	Tyr	Leu	Thr	Pro	Pro	Gln	Val	Asn
	130					135					140				
Ser	Ile	Leu	Lys	Ala	Asn	Glu	Tyr	Ser	Phe	Lys	Val	Pro	Glu	Phe	Asp
145					150					155					160
Gly	Lys	Asn	Val	Ser	Ser	Ile	Leu	Gly	Phe	Asp	Ser	Asn	Gln	Leu	Pro
				165					170				175		
Ala	Asn	Ala	Pro	Ile	Glu	Asp	Arg	Arg	Ser	Ala	Ala	Thr	Cys	Leu	Gln
			180					185					190		
Thr	Arg	Gly	Met	Leu	Leu	Gly	Val	Phe	Asp	Gly	His	Ala	Gly	Cys	Ala
		195				200						205			
Cys	Ser	Gln	Ala	Val	Ser	Glu	Arg	Leu	Phe	Tyr	Tyr	Ile	Ala	Val	Ser
	210					215					220				
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225					230					235					

<210> 2865

<211> 585

<212> DNA

<213> Homo sapiens

<400> 2865

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120  
ctgcagtgtg aagttttgat atgtgatagc agtgaccacc agtctcgctg caatcaaggt  
180  
tgtgtctcca gaagcaaacg agacatttct tcatataaat ggaaaacaga ttccatcata  
240

ggacccattc gtctgaaaag ggatcgaagt gcaagtggca attcaggatt tcagcatgaa  
 300  
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 360  
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 420  
 cgggcagact acaaatacca gaagctgcag aactattaac taacagggtcc aaccctaagt  
 480  
 gagacatgtt tctccaggat gccaaaggaa atgctacctc gtggctacac atattatgaa  
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<210> 2866

<211> 134

<212> PRT

<213> Homo sapiens

<400> 2866

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Ser	Met	Ser	Ser	Val	Tyr	Leu	Gln	Cys	Lys	Val	Leu	Ile	Cys	Asp	Ser
			20					25					30		
Ser	Asp	His	Gln	Ser	Arg	Cys	Asn	Gln	Gly	Cys	Val	Ser	Arg	Ser	Lys
	35						40					45			
Arg	Asp	Ile	Ser	Ser	Tyr	Lys	Trp	Lys	Thr	Asp	Ser	Ile	Ile	Gly	Pro
	50					55				60					
Ile	Arg	Leu	Lys	Arg	Asp	Arg	Ser	Ala	Ser	Gly	Asn	Ser	Gly	Phe	Gln
65				70						75				80	
His	Glu	Thr	His	Ala	Glu	Glu	Thr	Pro	Asn	Gln	Pro	Phe	Asn	Ser	Val
			85					90					95		
His	Leu	Phe	Ser	Phe	Met	Val	Leu	Ala	Leu	Asn	Val	Val	Thr	Val	Ala
		100						105					110		
Thr	Ile	Thr	Val	Arg	His	Phe	Val	Asn	Gln	Arg	Ala	Asp	Tyr	Lys	Tyr
		115					120					125			
Gln	Lys	Leu	Gln	Asn	Tyr										
	130														

<210> 2867

<211> 444

<212> DNA

<213> Homo sapiens

<400> 2867

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 120  
 cagaagggtga ctctgaaggt gtcgccacgg ggaattatcc ttcattccagg ccattcatcca  
 180  
 gctcccagac aacctgctg ccactcaagg cttgtggccg cggcacctcg tccatgttgg  
 240  
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 300

tcccagtggc gaccaagctc ttcaaggggg ggggtgcagtc ttggcggggc cccaggacgt  
 360  
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 420  
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 444

<210> 2868

<211> 84

<212> PRT

<213> Homo sapiens

<400> 2868

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Lys	Gly	Glu	Glu	Leu	Ser	Ala	Ala	Ala	Ile	Lys	Arg	Ile	Val	Ala	Thr
			20					25					30		
Ala	Lys	Ala	Ser	Gly	Lys	Lys	Leu	Gln	Lys	Val	Thr	Leu	Lys	Val	Ser
		35					40					45			
Pro	Arg	Gly	Ile	Ile	Leu	His	Pro	Gly	His	His	Pro	Ala	Pro	Arg	Gln
	50					55					60				
His	Cys	Cys	His	Ser	Arg	Leu	Val	Ala	Ala	Ala	Pro	Arg	Pro	Cys	Trp
65					70				75					80	
Trp	Cys	Trp	Arg												

<210> 2869

<211> 5811

<212> DNA

<213> Homo sapiens

<400> 2869

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 120  
 cccccaaggc cactcacctc cccaactac ccaggacaaa ggatgcccag ccaacccagc  
 180  
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 300  
 aacaggcctc ccaggccggt tcctgtggca aattaccccc actcacctgt tccagggaac  
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1260  
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1980  
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2160  
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2280

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3180  
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<212> PRT

<213> Homo sapiens

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Ser	Lys	Arg	Phe	Lys	Thr	Met	Ser	Pro	Ser	Gln	Met	Ile	Met	Pro	Asn
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Val	Met	Glu	Met	Ile	Ala	Ala	Leu	Gly	Pro	Gly	Pro	Ser	Pro	Tyr	Pro
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Pro	His	Ser	Asp	Leu	Thr	Phe	Asn	Pro	Ser	Ser	Ala	Leu	Glu	Gly	Gln
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Ala	Gly	Ala	Gln	Gly	Ala	Ser	Asp	Met	Pro	Glu	Pro	Ser	Leu	Asp	Leu
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Leu	Pro	Glu	Leu	Thr	Asn	Pro	Asp	Glu	Leu	Leu	Ser	Tyr	Leu	Asp	Pro
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Asn Asn

<210> 2871

<211> 786

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2871

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&lt;210&gt; 2872

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2872

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			20					25					30		
Ile	Ser	Pro	Asp	Ala	Phe	Phe	Gln	Ile	Asn	Thr	Ala	Gly	Ala	Glu	Met
			35				40						45		
Leu	Tyr	Trp	Thr	Val	Gly	Glu	Leu	Thr	Gly	Val	Asn	Ser	Asp	Thr	Ile
	50					55				60					
Leu	Leu	Asp	Ile	Cys	Cys	Gly	Thr	Gly	Val	Ile	Gly	Leu	Pro	Leu	Ala
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Gln	His	Thr	Ser	Arg	Val	Leu	Gly	Ile	Glu	Leu	Leu	Glu	Gln	Ala	Val
				85				90						95	
Glu	Asp	Ala	Arg	Trp	Thr	Ala	Ala	Phe	Asn	Gly	Ile	Thr	Asn	Ser	Glu
			100					105					110		
Phe	His	Thr	Gly	Gln	Ala	Glu	Lys	Ile	Leu	Pro	Gly	Leu	Leu	Lys	Ser
			115				120						125		
Lys	Glu	Asp	Gly	Gln	Ser	Ile	Val	Ala	Val	Val	Asn	Pro	Ala	Arg	Ala



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 <212> DNA  
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<213> Homo sapiens

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Lys Leu Lys Ala Ser Ser Arg Thr Ser Ala Leu Leu Ser Gly Phe Ala
          35           40           45
Met Val Ala Met Val Glu Val Gln Leu Asp Ala Asp His Asp Tyr Pro
          50           55           60
Pro Gly Leu Leu Ile Ala Phe Ser Ala Cys Thr Thr Val Leu Val Ala
65           70           75           80
Gly His Leu Phe Ala Leu Met Ile Ser Thr Cys Ile Leu Pro Asn Ile
          85           90           95
Glu Ala Val Ser Asn Cys Thr Ile Ser Thr Arg Lys Glu Ser Pro His
          100          105          110
Glu Arg Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val
          115          120          125
Ile Gly Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val
          130          135          140
Lys Phe Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser
145          150          155          160
Lys Pro Pro Ala Ser Gly Ala Ala Ala Asn Val Ser Thr Ser Gly Ile
          165          170          175
Thr Pro Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro
          180          185          190
Phe Gly Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu
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Val Ser His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala
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<212> DNA

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<400> 2875

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<211> 193

<212> PRT

<213> Homo sapiens

<400> 2876

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Asn	Arg	Leu	Glu	Pro	Met	Asp	Thr	Ile	Phe	Val	Lys	Gln	Val	Lys	Glu
			100					105				110			
Gly	Gly	Pro	Ala	Phe	Glu	Ala	Gly	Leu	Cys	Thr	Gly	Asp	Arg	Ile	Ile
			115				120					125			
Lys	Val	Asn	Gly	Glu	Ser	Val	Ile	Gly	Lys	Thr	Tyr	Ser	Gln	Val	Ile
			130				135				140				
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<211> 1921

<212> DNA

<213> Homo sapiens

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65	70 75 80
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Gly Leu Ala Glu Val Ser Lys Val Ala Glu Gln Val Leu Asn Ala Val	
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	290 295 300
Arg Asp Ala Leu Ser Gln Leu Met Asn Gly Pro Ile Arg Lys Lys Leu	
305	310 315 320
Lys Ile Ile Pro Glu Asp Gln Ser Trp Gly Gly Gln Ala Thr Asn Val	

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Phe Val Asn Met	Glu Glu Asp	Phe Met Lys	Pro Val Ile	Asp Ile Val	
	340		345		350
Asp Thr Leu Leu	Glu Ala Gly	Val Asn Val	Thr Val Tyr	Asn Gly Gln	
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Leu Asp Leu Ile	Val Asp Thr	Ile Gly Gln	Glu Ala Trp	Val Arg Lys	
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Leu Lys Trp Pro	Glu Leu Ser	Arg Phe Asn	Gln Leu Lys	Trp Lys Ala	
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Leu Tyr Ser Asp	Pro Lys Ser	Leu Glu Thr	Ser Ala Phe	Val Lys Ser	
	405		410		415
Tyr Lys Asn Leu	Ala Phe Tyr	Trp Ile Leu	Lys Ala Gly	His Met Val	
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&lt;210&gt; 2879

&lt;211&gt; 1352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2879

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&lt;210&gt; 2880

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2880

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Pro	Val	Xaa	Asp	Lys	Tyr	Ala	Pro	Lys	Leu	Asp	Ser	Pro	Tyr	Phe	Arg
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His	Ser	Ser	Val	Ser	Phe	Phe	Pro	Ser	Phe	Pro	Pro	Ala	Ile	Pro	Gly
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&lt;210&gt; 2881

&lt;211&gt; 3021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2881

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<211> 96

<212> PRT

<213> Homo sapiens

<400> 2882

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Arg	Val	Lys	Lys	Ala	Ser	Glu	Gly	Gly	Phe	Cys	Ser	Leu	Arg	Leu	Trp
			20					25					30		
Val	His	Pro	Gln	His	Phe	Leu	Arg	Lys	Arg	Thr	Pro	Ala	Gln	Ala	Gly
		35					40					45			
Pro	Ala	Ile	Ser	Pro	Leu	Pro	Thr	Asp	Ser	Gln	Ser	Pro	Leu	Ala	Ser
		50				55					60				
Pro	Leu	Asp	Val	Ser	Gly	Gln	Gly	Ser	Gly	Gly	Cys	Ser	Phe	Asp	Lys
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Lys	Lys	Lys	Lys	Phe	Tyr	Val	Phe	Lys	Leu	Leu	Leu	Gln	Asp	Phe	Asn
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<211> 516

<212> DNA

<213> Homo sapiens

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<211> 172

<212> PRT

<213> Homo sapiens

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Pro	Cys	Gln	Glu	Glu	His	Gly	His	Pro	Arg	Arg	Ile	Pro	His	Leu	Pro
65					70				75					80	
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			85					90					95		
His	Pro	Leu	Gly	Ser	Leu	Ala	Leu	Gly	Gln	Ser	Pro	Gly	Val	Ser	Met
		100						105				110			
Met	Ser	Pro	Val	Pro	Gly	Cys	Pro	Ser	Pro	Ala	Tyr	Ser	Ser	Pro	
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	130					135					140				
Leu	Ser	Pro	Pro	Pro	Glu	His	Pro	Gly	Phe	Asp	Ala	Leu	Asp	Gln	Leu
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<210> 2885

<211> 807

<212> DNA

<213> Homo sapiens

<400> 2885

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<210> 2886

<211> 269

<212> PRT

<213> Homo sapiens

<400> 2886

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		20						25					30		
Gly	Arg	Asp	Ala	Glu	Thr	Leu	Gln	Lys	Gln	Lys	Glu	Thr	Ile	Lys	Ala
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	50					55					60				
Lys	Thr	Cys	Lys	Met	Met	Leu	Ala	Thr	Glu	Glu	Thr	Ser	Pro	Asp	Leu
65					70					75					80
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			85						90					95	
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		115					120						125		
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<212> DNA
<213> Homo sapiens
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 1945

<210> 2888

<211> 315

<212> PRT

<213> Homo sapiens

<400> 2888

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			20					25					30		
Thr	Arg	Ser	Met	Leu	Lys	Met	Thr	Thr	Ser	Ile	Asn	Arg	Arg	Ser	Arg
		35					40					45			
Thr	Ser	Thr	Lys	Ser	Thr	Arg	Thr	Ser	Ala	Arg	Pro	Gly	Leu	Thr	Ala
		50				55					60				
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65					70				75					80	
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Arg	Gln	Val	Gly	Val	Tyr	Leu	Leu	Pro	Gly	Arg	Val	Gly	Cys	Val	Ser
			100					105				110			
Ser	Arg	Val	Ser	Pro	Ser	Phe	Pro	Gly	Asp	Gly	Leu	Asp	Ser	Gly	Leu
		115					120				125				
Ala	Arg	Arg	Gly	Ser	Ala	Val	Ser	Ala	Leu	Ala	Ser	Gly	Leu	Val	Glu
		130				135					140				
Glu	Pro	Met	Leu	Gly	Pro	Pro	Phe	His	Pro	Thr	Pro	Arg	Phe	Lys	Ala
145					150				155					160	
Val	Ser	Ala	Lys	Ser	Lys	Glu	Asp	Leu	Val	Ser	Gln	Gly	Phe	Thr	Glu
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Phe	Thr	Ile	Glu	Asp	Phe	His	Asn	Thr	Phe	Met	Asp	Leu	Ile	Glu	Gln

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Gln	Ser	Thr	Ser	Asp	Tyr	Leu	Val	Val	Tyr	Leu	Arg	Leu	Leu	Thr	Ser		
210						215						220					
Gly	Tyr	Leu	Gln	Arg	Glu	Ser	Lys	Phe	Phe	Glu	His	Phe	Ile	Glu	Gly		
225						230						235					
Gly	Arg	Thr	Val	Lys	Glu	Phe	Cys	Gln	Gln	Glu	Val	Glu	Pro	Met	Cys		
245						250						255					
Lys	Glu	Ser	Asp	His	Ile	His	Ile	Ile	Ala	Leu	Ala	Gln	Ala	Leu	Ser		
260						265						270					
Val	Ser	Ile	Gln	Val	Glu	Tyr	Met	Asp	Arg	Gly	Glu	Gly	Gly	Thr	Thr		
275						280						285					
Asn	Pro	His	Ile	Phe	Pro	Glu	Gly	Ser	Glu	Pro	Lys	Val	Tyr	Leu	Leu		
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<210> 2889
<211> 614
<212> DNA
<213> Homo sapiens
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240
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420
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480
tctgttga aa ttgtcacccc acagctgccc gccgtggaaa ttgaggaagg gcggctggag
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614

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<210> 2890
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<212> PRT
<213> Homo sapiens
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      20           25           30
Pro Glu Val Lys Leu Pro Arg Ala Pro Glu Val Gln Leu Lys Ala Thr
      35           40           45
Lys Ala Glu Gln Ala Glu Gly Met Glu Phe Gly Phe Lys Met Pro Lys
      50           55           60
Met Thr Met Pro Lys Leu Gly Arg Ala Glu Ser Pro Ser Arg Gly Lys
      65           70           75           80
Pro Gly Glu Ala Gly Ala Glu Val Ser Gly Lys Leu Val Thr Leu Pro
      85           90           95
Cys Leu Gln Pro Glu Val Asp Gly Glu Ala His Val Gly Val Pro Ser
      100          105          110
Leu Thr Leu Pro Ser Val Glu Leu Asp Leu Pro Gly Ala Leu Gly Leu
      115          120          125
Gln Gly Gln Val Pro Ala Ala Lys Met Gly Lys Gly Glu Arg Ala Glu
      130          135          140
Gly Pro Glu Val Ala Ala Gly Val Arg Glu Val Gly Phe Arg Val Pro
      145          150          155          160
Ser Val Glu Ile Val Thr Pro Gln Leu Pro Ala Val Glu Ile Glu Glu
      165          170          175
Gly Arg Leu Glu Met Ile Glu Thr Lys Val Lys Pro Ser Ser Lys Phe
      180          185          190
Ser Leu Pro Lys Phe Gly Leu Ser Gly Pro Lys Val
      195          200

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&lt;210&gt; 2891

&lt;211&gt; 565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2891

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480
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565

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&lt;210&gt; 2892



<211> 90  
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 Arg Leu Cys Arg Ala Leu Ser Lys Thr Pro Leu Gln His Gln Leu His  
           20                  25                  30  
 Ser Thr Ser Tyr Arg Lys Ala Leu Pro Ile Leu Arg Pro Ser Ser Arg  
           35                  40                  45  
 Arg Glu Ala Gly Pro Leu His His Ile Asp Leu Arg Arg Cys Phe Ser  
   50                  55                  60  
 Arg Leu Gly Arg Gly Ala Asp Phe Ala Val Cys Ala Lys Glu Pro Val  
  65                  70                  75                  80  
 Ser Asp Asn Pro Ile Phe Leu Leu Ile Thr  
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<210> 2893  
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 <212> DNA  
 <213> Homo sapiens

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 180  
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 840  
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2270

&lt;210&gt; 2894

&lt;211&gt; 490

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2894

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		20						25				30	
Gln	Val	Ser	Val	Ser	Leu	His	Pro	Gly	Thr	Gly	Leu	Phe	Ser
		35						40				45	
Cys	Ser	Val	Pro	Leu	Trp	Cys	Ile	Tyr	Phe	Leu	Ser	Phe	Cys
		50				55					60		
Leu	Ser	Leu	Pro	Ser	Ala	Ser	Leu	His	Leu	Cys	Leu	Ser	Cys
65					70					75			80
Phe	Leu	Asn	Leu	Asp	Cys	Pro	Cys	Leu	Phe	Leu	Cys	His	Ser
				85					90				95
Ser	Pro	Ser	Val	Cys	Gly	Ser	Ala	Ser	Leu	Ser	His	Ser	Pro
			100					105					110
Trp	Pro	Leu	Pro	Ala	Gln	Thr	Phe	Leu	Asp	Glu	Leu	His	Glu
		115						120				125	
Gln	Leu	His	Ser	Met	Ser	Thr	Trp	Met	Glu	Leu	Tyr	Pro	Ala
		130				135					140		
Thr	Asp	Val	Arg	Phe	Ala	Asn	Met	Leu	Gly	Gln	Pro	Gly	Ser
145					150					155			160
Leu	Asp	Leu	Phe	Lys	Phe	Tyr	Val	Glu	Glu	Leu	Lys	Ala	Arg
				165					170				175
Asp	Glu	Lys	Lys	Ile	Ile	Lys	Asp	Ile	Leu	Lys	Asp	Arg	Gly
			180					185				190	
Val	Glu	Val	Asn	Thr	Ala	Phe	Glu	Asp	Phe	Ala	His	Val	Ile
		195						200				205	
Asp	Lys	Arg	Ala	Ala	Ala	Leu	Asp	Ala	Gly	Asn	Ile	Lys	Leu
		210				215					220		
Asn	Ser	Leu	Leu	Glu	Lys	Ala	Glu	Ala	Arg	Glu	Arg	Glu	Arg
225					230					235			240
Glu	Glu	Ala	Arg	Arg	Met	Arg	Arg	Arg	Glu	Ala	Ala	Phe	Arg
				245					250				255
Leu	Arg	Gln	Ala	Val	Pro	Ala	Leu	Glu	Leu	Gly	Thr	Ala	Trp
			260					265				270	
Val	Arg	Glu	Arg	Phe	Val	Cys	Asp	Ser	Ala	Phe	Glu	Gln	Ile
		275					280				285		
Glu	Ser	Glu	Arg	Ile	Arg	Leu	Phe	Arg	Glu	Phe	Leu	Gln	Val
		290				295					300		
Thr	Glu	Cys	Gln	His	Leu	His	Thr	Lys	Gly	Arg	Lys	His	Gly
305					310					315			320
Gly	Lys	Lys	His	His	His	Lys	Arg	Ser	His	Ser	Pro	Ser	Gly
			325						330				335
Ser	Glu	Glu	Glu	Glu	Leu	Pro	Pro	Pro	Ser	Leu	Arg	Pro	Pro
			340					345				350	
Arg	Arg	Arg	Asn	Pro	Ser	Glu	Ser	Gly	Ser	Glu	Pro	Ser	Ser
		355					360				365		
Asp	Ser	Val	Glu	Ser	Gly	Gly	Ala	Ala	Leu	Gly	Gly	Arg	Gly
		370				375				380			
Ser	Ser	His	Leu	Leu	Gly	Ala	Asp	His	Gly	Leu	Arg	Lys	Ala
385					390					395			400
Pro	Lys	Lys	Lys	Thr	Lys	Lys	Arg	Arg	His	Lys	Ser	Asn	Ser
			405						410				415
Ser	Glu	Thr	Asp	Pro	Glu	Glu	Lys	Ala	Gly	Lys	Glu	Ser	Asp
			420					425				430	
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<212> DNA
<213> Homo sapiens
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<210> 2896
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<213> Homo sapiens
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2128

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Leu Pro Pro Asp Arg Pro Arg Pro Pro Ala Arg Arg His Ser Phe Arg
      100         105         110
Gly Pro Ala Leu Arg Ser Gly Pro Pro Leu Pro Pro Pro Arg Arg
      115         120         125
Pro Leu Leu Arg Pro Pro Val Ala Ala Ala Leu Pro Pro Gln Pro Ala
      130         135         140
Pro Ser Leu Pro Ala Ser Arg Ala His Ser Cys Pro Gly Arg Pro Arg
145         150         155         160
Leu Gly Gly Val Glu Gln Pro Leu Glu Val Leu Gly Asp Ala
      165         170

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&lt;210&gt; 2897

&lt;211&gt; 3184

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2897

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1020

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<212> PRT

<213> Homo sapiens

<400> 2898

Met	Asn	Val	Glu	Ile	Lys	Cys	Lys	Asp	Arg	Thr	Gly	Ser	Ile	Thr	Leu
1				5					10					15	
Leu	Thr	Pro	Asn	Gln	Thr	Asn	Ile	Ile	Asn	Phe	Tyr	Glu	Val	Glu	Leu
			20					25					30		
Asn	Glu	Cys	Val	Gln	Cys	Glu	Phe	Asn	Phe	Ile	Asn	Thr	Gly	Lys	Phe
		35					40					45			
Thr	Phe	Ser	Phe	Gln	Ala	Gln	Leu	Cys	Gly	Ser	Lys	Thr	Leu	Leu	Gln
		50				55					60				
Tyr	Leu	Glu	Phe	Ser	Pro	Ile	Asp	Ser	Thr	Val	Asp	Val	Gly	Gln	Ser
65					70				75					80	
Val	His	Ala	Thr	Leu	Ser	Phe	Gln	Pro	Leu	Lys	Lys	Cys	Val	Leu	Thr
			85					90					95		
Asp	Leu	Glu	Leu	Ile	Ile	Lys	Ile	Ser	His	Gly	Pro	Thr	Phe	Met	Cys
			100					105					110		
Asn	Ile	Ser	Gly	Cys	Ala	Val	Ser	Pro	Ala	Ile	His	Phe	Ser	Phe	Thr
		115					120					125			
Ser	Tyr	Asn	Phe	Gly	Thr	Cys	Phe	Ile	Tyr	Gln	Ala	Gly	Met	Pro	Pro
		130				135					140				
Tyr	Lys	Gln	Thr	Leu	Val	Ile	Thr	Asn	Lys	Glu	Glu	Thr	Pro	Met	Ser
145				150					155					160	
Ile	Asp	Cys	Leu	Tyr	Thr	Asn	Thr	Thr	His	Leu	Glu	Val	Asn	Ser	Arg
			165					170					175		
Val	Asp	Val	Val	Lys	Pro	Gly	Asn	Thr	Leu	Glu	Ile	Pro	Ile	Thr	Phe
		180					185					190			
Tyr	Pro	Arg	Glu	Ser	Ile	Asn	Tyr	Gln	Glu	Leu	Ile	Pro	Phe	Glu	Ile
		195				200					205				
Asn	Gly	Leu	Ser	Gln	Gln	Thr	Val	Glu	Ile	Lys	Gly	Lys	Gly	Thr	Glu

210	215	220
Met Lys Ile Leu Val	Leu Asp Pro Ala Asn Arg	Ile Val Lys Leu Gly
225	230	235
Ala Val Leu Pro Gly	Gln Val Val Lys Arg Thr	Val Ser Ile Met Asn
245	250	255
Asn Ser Leu Ala Gln	Leu Thr Phe Asn Gln Ser	Ile Leu Phe Thr Ile
260	265	270
Pro Glu Leu Gln Glu	Pro Lys Val Leu Thr Leu	Ala Pro Phe His Asn
275	280	285
Ile Thr Leu Lys Pro	Lys Glu Val Cys Lys Leu	Glu Val Ile Phe Ala
290	295	300
Pro Lys Lys Arg Val	Pro Phe Ser Glu Glu Val	Phe Met Glu Cys
305	310	315
Met Gly Leu Leu Arg	Pro Leu Phe Leu Leu Ser	Gly Cys Cys Gln Ala
325	330	335
Leu Glu Ile Ser Leu	Asp Gln Glu His Ile Pro	Phe Gly Pro Val Val
340	345	350
Tyr Gln Thr Gln Ala	Thr Arg Arg Ile Leu Met	Leu Asn Thr Gly Asp
355	360	365
Val Gly Ala Arg Phe	Lys Trp Asp Ile Lys Lys	Phe Glu Pro His Phe
370	375	380
Ser Ile Ser Pro Glu	Glu Gly Tyr Ile Thr Ser	Gly Met Glu Val Ser
385	390	395
Phe Glu Val Thr Tyr	His Pro Thr Glu Val Gly	Lys Glu Ser Leu Cys
405	410	415
Lys Asn Ile Leu Cys	Tyr Ile Gln Gly Gly Ser	Pro Leu Ser Leu Thr
420	425	430
Leu Ser Gly Val Cys	Val Gly Pro Pro Ala Val	Lys Glu Val Val Asn
435	440	445
Phe Thr Cys Gln Val	Arg Ser Lys His Thr Gln	Thr Ile Leu Leu Ser
450	455	460
Asn Arg Thr Asn Gln	Thr Trp Asn Leu His Pro	Ile Phe Glu Gly Glu
465	470	475
His Trp Glu Gly Pro	Glu Phe Ile Thr Leu Glu	Ala His Gln Gln Asn
485	490	495
Lys Pro Tyr Glu Ile	Thr Tyr Arg Pro Arg Thr	Met Asn Leu Glu Asn
500	505	510
Arg Lys His Gln Gly	Thr Leu Phe Phe Pro Leu	Pro Asp Gly Thr Gly
515	520	525
Trp Leu Tyr Ala Leu	His Gly Thr Ser Glu Leu	Pro Lys Ala Val Ala
530	535	540
Asn Ile Tyr Arg Glu	Val Pro Cys Lys Thr Pro	Tyr Thr Glu Leu Leu
545	550	555
Pro Ile Thr Asn Trp	Leu Asn Lys Pro Gln Arg	Phe Arg Val Ile Val
565	570	575
Glu Ile Leu Lys Pro	Glu Lys Pro Asp Leu Ser	Ile Thr Met Lys Gly
580	585	590
Leu Asp Tyr Ile Asp	Val Leu Ser Gly Ser Lys	Lys Asp Tyr Lys Leu
595	600	605
Asn Phe Phe Ser His	Lys Glu Gly Thr Tyr Ala	Ala Lys Val Ile Phe
610	615	620
Arg Asn Glu Val Thr	Asn Glu Phe Leu Tyr Tyr	Asn Val Ser Phe Arg
625	630	635
Val Ile Pro Ser Gly	Ile Ile Lys Thr Ile Glu	Met Val Thr Pro Val



[illegible]

<210> 2899

<211> 876

<212> DNA

<213> Homo sapiens

<400> 2899

ngeggctgac gggcccgcgg tctgggcgtg agtgcagga agtggagtat ttgctgggcc  
 60

gggtaccatg gacgtgggcg aacttctgag ctaccaggag ggtcattgcg aggagcagta  
120

gagctgcact gccgaatgtc gtagccacta gccacatagg ctgttgattg cttgaaatgt  
180

gactagtctg aattgagaaa tactcccaac aggggcacaa aacgtcccg ggatgatgag  
240

gaagaagaac tgaagacacg cgcgaagcaa actggtactc gagaacgcgg cgcctatcgg  
300

gaagaagaaa tgactgtggt ggaggaagcg gatgatgaca aaaaaaggct gctgcagatt  
 360  
 attgacagag atggggaaga ggaagaggaa gaggaggagc cattggatga aagctcagtg  
 420  
 aagaaaatga tcctcacatt tgaaaagaga tcatataaaa accaagaatt gcggattaag  
 480  
 tttccagaca atccagagaa gttcatggaa tccgagctgg acctaaatga catcattcag  
 540  
 gagatgcacg tgggtggccac catgccagac ctgtaccacc ttctggtgga gctgaatgct  
 600  
 gtacagtgcg ttctcggtt gctcggacac gataatacag atgtgtccat agctgtggtc  
 660  
 gatttgcttc aggaattaac agatatagac accctccatg agagtgaaga gggagcagaa  
 720  
 gtgctcatcg atgctctggt ggatgggcag gtggtagcac tgctggtaca gaatctggag  
 780  
 cgcttggatg agtctgtgaa agaggaggca gatggcgctc acaacactct ggctattgtg  
 840  
 gaaaacatgg ctgagttccg gcctgagatg tgtaca  
 876

&lt;210&gt; 2900

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2900

Met	Thr	Val	Val	Glu	Glu	Ala	Asp	Asp	Asp	Lys	Lys	Arg	Leu	Leu	Gln
1				5					10					15	
Ile	Ile	Asp	Arg	Asp	Gly	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Pro	Leu
			20					25					30		
Asp	Glu	Ser	Ser	Val	Lys	Lys	Met	Ile	Leu	Thr	Phe	Glu	Lys	Arg	Ser
		35					40					45			
Tyr	Lys	Asn	Gln	Glu	Leu	Arg	Ile	Lys	Phe	Pro	Asp	Asn	Pro	Glu	Lys
	50					55					60				
Phe	Met	Glu	Ser	Glu	Leu	Asp	Leu	Asn	Asp	Ile	Ile	Gln	Glu	Met	His
65					70					75				80	
Val	Val	Ala	Thr	Met	Pro	Asp	Leu	Tyr	His	Leu	Leu	Val	Glu	Leu	Asn
				85					90					95	
Ala	Val	Gln	Ser	Leu	Leu	Gly	Leu	Leu	Gly	His	Asp	Asn	Thr	Asp	Val
			100					105					110		
Ser	Ile	Ala	Val	Val	Asp	Leu	Leu	Gln	Glu	Leu	Thr	Asp	Ile	Asp	Thr
		115					120					125			
Leu	His	Glu	Ser	Glu	Glu	Gly	Ala	Glu	Val	Leu	Ile	Asp	Ala	Leu	Val
	130					135					140				
Asp	Gly	Gln	Val	Val	Ala	Leu	Leu	Val	Gln	Asn	Leu	Glu	Arg	Leu	Asp
145					150					155				160	
Glu	Ser	Val	Lys	Glu	Glu	Ala	Asp	Gly	Val	His	Asn	Thr	Leu	Ala	Ile
			165					170					175		
Val	Glu	Asn	Met	Ala	Glu	Phe	Arg	Pro	Glu	Met	Cys	Thr			
		180						185							

&lt;210&gt; 2901

&lt;211&gt; 756

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2901

acgcgtcggg gaggggcttt cgactttttt gagaagcaag accaagtggc agaagagggg  
 60  
 ccgcccgtcc agagcctgaa gggcgaggat gctgaggaat ccttggagga ggaggaggcg  
 120  
 ctggaccctc tgggcattat gcgctccaag aagcccaaga aacatcccaa agtggccgtg  
 180  
 aaagccaagc cctcgccccg gctcaccatc tttgacgagg aggtggaccc tgatgagggg  
 240  
 ctctttggcc cgggcaggaa gctgtctcca caggaccctt cggaggacgt gtcattcatg  
 300  
 gacccccga agctatttga tgatcctgac ctcggcgggg ccattccccct ggggtgactcc  
 360  
 ctctgctgc cggccgcctg tgagagtggg gggcccacac ccagcctcag ccacagggac  
 420  
 gcctccaagg aactgttcag gtaccacctg tccccagcgg cgcttggcca gctctgagag  
 480  
 tgtcctggac agagccaagg gcccggtcca ttgccagtc tcagccccag cctcctctga  
 540  
 ggggaggacc ccaggcctgt gaaaagtaga agcctgtggg tgcacattgg gtgagaggcg  
 600  
 gtgaaggggg ctgaggggga ggnaantcgc ccagggctgc tcagctagtt ccagaaagag  
 660  
 agaactttgt gtgcacaacc agtctttctt ttcacaatca tattttaaca gtttatgtaa  
 720  
 agaataatta aattatataa ttgccagggc aaaaaa  
 756

&lt;210&gt; 2902

&lt;211&gt; 158

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2902

Thr	Arg	Arg	Arg	Gly	Ala	Phe	Asp	Phe	Phe	Glu	Lys	Gln	Asp	Gln	Val
1				5					10					15	
Ala	Glu	Glu	Gly	Pro	Pro	Val	Gln	Ser	Leu	Lys	Gly	Glu	Asp	Ala	Glu
			20					25					30		
Glu	Ser	Leu	Glu	Glu	Glu	Ala	Leu	Asp	Pro	Leu	Gly	Ile	Met	Arg	
		35				40					45				
Ser	Lys	Lys	Pro	Lys	Lys	His	Pro	Lys	Val	Ala	Val	Lys	Ala	Lys	Pro
		50				55				60					
Ser	Pro	Arg	Leu	Thr	Ile	Phe	Asp	Glu	Glu	Val	Asp	Pro	Asp	Glu	Gly
65					70					75				80	
Leu	Phe	Gly	Pro	Gly	Arg	Lys	Leu	Ser	Pro	Gln	Asp	Pro	Ser	Glu	Asp
			85						90					95	
Val	Ser	Ser	Met	Asp	Pro	Leu	Lys	Leu	Phe	Asp	Asp	Pro	Asp	Leu	Gly
			100						105					110	
Gly	Ala	Ile	Pro	Leu	Gly	Asp	Ser	Leu	Leu	Leu	Pro	Ala	Ala	Cys	Glu
		115					120					125			
Ser	Gly	Gly	Pro	Thr	Pro	Ser	Leu	Ser	His	Arg	Asp	Ala	Ser	Lys	Glu

130 135 140  
 Leu Phe Arg Tyr His Leu Ser Pro Ala Ala Leu Gly Gln Leu  
 145 150 155

<210> 2903  
 <211> 542  
 <212> DNA  
 <213> Homo sapiens

<400> 2903  
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 60  
 accacctatt tctctgggaa ttgtaccatg gaagatgcca aattggccca ggactttctg  
 120  
 gactcacaga acctcagtgc ctacaacacc cggctcttca aagaggtcga tggagaaggg  
 180  
 aagccctact acgagggtgcg gctggcttct gtgcttggt cagagccttc cctggactct  
 240  
 gaggtgactt ccaagctgaa gagctatgaa ttccggggaa gccctttcca ggtgacccgg  
 300  
 ggggactacg cgcccatcct ccagaagggtg gtggagcagc tggagaaagc caaggcctat  
 360  
 gcagccaaca gccaccaggg gcagatgctg gcccagtata tagagagctt caccaggggc  
 420  
 tccatcgagg ccacaagag gggctccgc ttctggatcc aggacaaagg ccccatcgct  
 480  
 ggagaggtga ggcgccagct ccacccacc tgccccctcc tgctgcccc tccttcacgc  
 540  
 gt  
 542

<210> 2904  
 <211> 180  
 <212> PRT  
 <213> Homo sapiens

<400> 2904  
 Lys Leu Met Phe Ser Leu Tyr Pro Arg Leu Arg His Leu Gly Leu Gly  
 1 5 10 15  
 Lys Glu Gly Ile Thr Thr Tyr Phe Ser Gly Asn Cys Thr Met Glu Asp  
 20 25 30  
 Ala Lys Leu Ala Gln Asp Phe Leu Asp Ser Gln Asn Leu Ser Ala Tyr  
 35 40 45  
 Asn Thr Arg Leu Phe Lys Glu Val Asp Gly Glu Gly Lys Pro Tyr Tyr  
 50 55 60  
 Glu Val Arg Leu Ala Ser Val Leu Gly Ser Glu Pro Ser Leu Asp Ser  
 65 70 75 80  
 Glu Val Thr Ser Lys Leu Lys Ser Tyr Glu Phe Arg Gly Ser Pro Phe  
 85 90 95  
 Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val Glu  
 100 105 110  
 Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly Gln  
 115 120 125  
 Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu Ala

```

      130              135              140
His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro His Arg
145              150              155              160
Gly Glu Val Arg Arg Gln Leu His Pro Thr Cys Pro Leu Leu Pro Ala
      165              170              175
Pro Pro Ser Arg
      180

```

<210> 2905  
 <211> 814  
 <212> DNA  
 <213> Homo sapiens

```

<400> 2905
ttttcatatc ccagttttgt ttatttggga acatttactc ttgtggataa cagaatacca
60
gtcacaaagat ccttcttctg tattacaaat tctgccactt tgtttcagaa ctgggtatca
120
ggattcctcc tctgcccagg tttctgctgt cccccaaaa gaaagacatg tagctgggca
180
tggtgtgaca catctgtggt ccagttact caggaggctg aggcaggagg attgcttgag
240
cccaggtgtt caaggttgca gtgggctgtg aatgctctac ttcactccag cctgagcaac
300
agagcaagac ccggccctc ttctcgactt tctatccctc ctctcaaca cccttctctt
360
ctggaaatgg gcttcgggggt ggtaaccaa gcccaggga acttgctggtg cccagcatct
420
tccgtccgct gcaggaggag cacacgcccc cgcccgggt cagcaagacg cgagaaagcg
480
gccacgccgg gcgtccggga gctgaggctg gagggcgctt ggcaggcagg gcggggccca
540
ggcggcgggga gtgcttatga ccggcgctgg ggggaacttc tggacgtcaa ggggccacta
600
taaagcggca cagtcttgag ccttcgctct tcacctaat cagtgcgc ccttcgcaaa
660
gcctctgtgg aggtaacat tgggggttcg cctccaaatc caggaatgca cctcaaaaat
720
gctcctacac cgtaagaccg tgccttcaa tgcaaagggg actgtgcggc gaggcaccga
780
caagccgtag cctgagacc actcaaagcc tgca
814

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<210> 2906  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

```

<400> 2906
Phe Ser Tyr Pro Ser Phe Val Tyr Leu Gly Thr Phe Thr Leu Val Asp
1          5          10          15
Asn Arg Ile Pro Val Thr Arg Ser Phe Phe Cys Ile Thr Asn Ser Ala
      20          25          30
Thr Leu Phe Gln Asn Trp Val Ser Gly Phe Leu Leu Cys Pro Gly Phe

```

```

      35              40              45
Cys Cys Pro Pro Lys Arg Lys Thr Cys Ser Trp Ala Trp Trp Tyr Thr
  50              55              60
Ser Val Val Pro Val Thr Gln Glu Ala Glu Ala Gly Gly Leu Leu Glu
  65              70              75              80
Pro Arg Cys Ser Arg Leu Gln Trp Ala Val Asn Ala Leu Leu His Ser
      85              90              95
Ser Leu Ser Asn Arg Ala Arg Pro Arg Pro Ser Ser Arg Leu Ser Ile
      100              105              110
Pro Pro Pro Gln His Pro Phe Leu Leu Glu Met Gly Phe Gly Val Val
      115              120              125
Asn Gln Ala Gln Gly Asn Leu Arg Gly Pro Ala Ser Ser Val Arg Cys
      130              135              140
Arg Arg Ser Thr Arg Pro Arg Pro Gly Ser Ala Arg Arg Glu Lys Ala
      145              150              155              160
Ala Thr Pro Gly Val Arg Glu Leu Arg Leu Glu Gly Ala Trp Gln Ala
      165              170              175
Gly Arg Gly Pro Gly Gly Gly Ser Ala Tyr Asp Arg Arg Trp Gly Glu
      180              185              190
Leu Leu Asp Val Lys Gly Pro Leu
      195              200

```

&lt;210&gt; 2907

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2907

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ntgagaccct gtctcaaagt aaaaaattct gaaaaatgct atgaccgtga gtgaccggcc
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atcagcaggc tgtgatctgc cgaaactcat gacagcgagc ctcaatggct gggctttaag
120
aaacagcatc ttcaattttc ccaggctgct ttccaatttc caaactgtc cccaagatta
180
caaaggcaaa ggaattcttc ccttaatggt ggacggctct gagactgtc caccctgggc
240
tcattacact gggaccagct ttaagcttcc ctgttcaacg cggagagctc cacagcccag
300
gacgacagag cagatgatgg cacgacgccc tcaaaaccca gacaggcctt cttggcttgc
360
cctggccgat gccaccggt
379

```

&lt;210&gt; 2908

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2908

```

Met Thr Val Ser Asp Arg Pro Ser Ala Gly Cys Asp Leu Pro Lys Leu
 1          5          10          15
Met Thr Ala Ser Leu Asn Gly Trp Val Leu Arg Asn Ser Ile Phe Thr
      20          25          30
Phe Pro Arg Leu Leu Ser Asn Phe Gln His Cys Pro Gln Asp Tyr Lys

```



tgaactgcag gtctcacgct ggctgcatga cttgggtgccc cctggctggc tgagccactg  
 1140  
 cctgccacct tctcatacca ttacgtgggg gtctaaagag gacatcatcc ccaaccaaag  
 1200  
 aatagtgaga gagaaaaatcc caaacatttg agacaggggt caaaagcacc cagacgcctt  
 1260  
 ctgtctcttt cccagttccc atctggctag ggactgtgaa tcagaattca gaatctgtgc  
 1320  
 tgccctgagg ggacaggcac ccaaagtcaa taaataacac caagctcagg acccagccac  
 1380  
 tgaccttctt ccaccactgc tgcgggttat tcctcgatgg gaactgaagg atccaaggga  
 1440  
 ggaatccgtt ccgcccccaa acctccctgc acaacatcga atgcgggagt ctggctgctg  
 1500  
 cttctgcaca ggacagagcc tccagtcttt tgcttgagag catcatttat ggcattggact  
 1560  
 gggaaacgcaa tgtgttcaca caaatgcacg acaattgtac atcagcatct ttacaatat  
 1620  
 aaaggagtca tatacaagtc tacagccatt gtacacagga tggatgatgg tggggagccc  
 1680  
 cgcccaccag tcctctgcag tttctccacc ggagaacact tggggagctg tcacaaggcc  
 1740  
 aggggggggtc catctttggg cctgtcgtgg ggcaggcagc aggtctgcaa ggactcctca  
 1800  
 gggccagtcc tcaactggaat caggggtcaa gagcgccagg tctgcctgtg tctgggtctc  
 1860  
 atcggcaggc tagtgtaaca acgtgaatta aaactgtgca tattcgcatg agaaaactgg  
 1920  
 agctggggat ggctccctga gctggggacc tagaagacgc tgctgacaga tggggccctt  
 1980  
 catggtgggg ccatttctg aggtaacgtg cagccctgag gctgggtccga acgggaggag  
 2040  
 acttctccag cagcccaggt gccagtccac acagacagga ctggaagccc ctgggcagca  
 2100  
 ggtcaggtga cccggggagt gcagcctgag cccccaacgg cagcaaactg gaaggtctca  
 2160  
 ggtggttaca gaactactca gccctcaggc cccaccact ctctcccag cagccctgca  
 2220  
 gcacacatcc ctgcatctgt cccgagagcc ccagccctgc aggcattctg gcctgaatgc  
 2280  
 caggcagctg gtccaccctg cagccatgct gcacgtctga ctgagaactg agcaccagat  
 2340  
 aaagaagcat tggctcttgt cagcctctct gacttttgca gttagggtg catccattta  
 2400  
 aatatgtaga aaaatagcca  
 2420

&lt;210&gt; 2910

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2910

Met Gly Thr Glu Gly Ser Lys Gly Gly Ile Arg Ser Ala Pro Lys Pro



```

      1           5           10           15
Pro Cys Thr Thr Ser Asn Ala Gly Val Trp Leu Leu Leu Leu His Arg
      20           25           30
Thr Glu Pro Pro Val Phe Cys Leu Arg Ala Ser Phe Met Ala Trp Thr
      35           40           45
Gly Asn Ala Met Cys Ser His Lys Cys Thr Thr Ile Val His Gln His
      50           55           60
Leu Tyr Asn Ile Lys Gly Val Ile Tyr Lys Ser Thr Ala Ile Val His
      65           70           75           80
Arg Met Val Met Ala Gly Glu Pro Arg Pro Pro Val Leu Cys Ser Phe
      85           90           95
Ser Thr Gly Glu His Leu Gly Ser Cys His Lys Ala Arg Gly Gly Pro
      100          105          110
Ser Leu Gly Leu Ser Trp Gly Arg Gln Gln Val Cys Lys Asp Ser Ser
      115          120          125
Gly Pro Val Leu Thr Gly Ile Arg Gly Gln Glu Arg Gln Val Cys Leu
      130          135          140
Cys Leu Gly Leu Ile Gly Arg Leu Val
      145          150

```

&lt;210&gt; 2911

&lt;211&gt; 1327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2911

```

nngcaaggcg gcacgtcctg ctccccctgg tgaagaagct gccctgggct tgctgctcta
60
gggtctccag acatgtctga ggtgaagagc cggaagaagt cggggcccaa gggagcccct
120
gctgcgagcg ccgggaagcg gagcgagggc gggaagaccc ccgtggcccg gagcagcgga
180
ggcgggggct gggcagaccc ccgaacgtgc ctgagcctgc tgctgctggg gacgtgcctg
240
ggcctggcct ggtttgtatt tcagcagtca gaaaaatttg caaagggtga aaaccaatac
300
cagttactga aactagaaac caatgaattc caacaacttc aaagtaaaat cagtttaatt
360
tcagaaaagt ggcagaaatc tgaagctatc atggaacaat tgaagtcttt tcaaataatt
420
gctcatctaa agcgtctaca ggaagaaatt aatgaggtaa aaacttggtc caataggata
480
actgaaaaac aggatatact gaacaacagt ctgacgacgc tttctcaaga cattacaaaa
540
gtagacaaaa gtacaacttc catggcaaaa gatgttggtc tcaagattac aagtgtaaaa
600
acagatatac gacggatttc aggttttagta actgatgtaa tatcattgac agattctgtg
660
caagaactag aaaataaaat agagaaagta gaaaaaaata cagtaaaaaa tataggtgat
720
cttctttcaa gcagtattga tcgaacagca acgctccgaa agacagcatc tgaaaattca
780
caaagaatta actctgttaa gaagacgcta accgaactaa agagtgactt cgacaaacat
840

```

acagatagat ttctaagctt agaaggtgac agagccaaag ttctgaagac agtgactttt  
 900  
 gcaaatgata taaaacccaaa ggtgtataat ctaaagaagg acttttcccg tttagaacca  
 960  
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 1020  
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&lt;210&gt; 2912

&lt;211&gt; 350

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2912

Met	Ser	Glu	Val	Lys	Ser	Arg	Lys	Lys	Ser	Gly	Pro	Lys	Gly	Ala	Pro
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Ala	Ala	Glu	Pro	Gly	Lys	Arg	Ser	Glu	Gly	Gly	Lys	Thr	Pro	Val	Ala
			20					25					30		
Arg	Ser	Ser	Gly	Gly	Gly	Gly	Trp	Ala	Asp	Pro	Arg	Thr	Cys	Leu	Ser
		35					40					45			
Leu	Leu	Ser	Leu	Gly	Thr	Cys	Leu	Gly	Leu	Ala	Trp	Phe	Val	Phe	Gln
	50					55					60				
Gln	Ser	Glu	Lys	Phe	Ala	Lys	Val	Glu	Asn	Gln	Tyr	Gln	Leu	Leu	Lys
65				70					75					80	
Leu	Glu	Thr	Asn	Glu	Phe	Gln	Gln	Leu	Gln	Ser	Lys	Ile	Ser	Leu	Ile
			85					90						95	
Ser	Glu	Lys	Trp	Gln	Lys	Ser	Glu	Ala	Ile	Met	Glu	Gln	Leu	Lys	Ser
			100					105					110		
Phe	Gln	Ile	Ile	Ala	His	Leu	Lys	Arg	Leu	Gln	Glu	Glu	Ile	Asn	Glu
	115					120						125			
Val	Lys	Thr	Trp	Ser	Asn	Arg	Ile	Thr	Glu	Lys	Gln	Asp	Ile	Leu	Asn
	130				135						140				
Asn	Ser	Leu	Thr	Thr	Leu	Ser	Gln	Asp	Ile	Thr	Lys	Val	Asp	Gln	Ser
145				150					155					160	
Thr	Thr	Ser	Met	Ala	Lys	Asp	Val	Gly	Leu	Lys	Ile	Thr	Ser	Val	Lys
			165					170						175	
Thr	Asp	Ile	Arg	Arg	Ile	Ser	Gly	Leu	Val	Thr	Asp	Val	Ile	Ser	Leu
			180				185						190		
Thr	Asp	Ser	Val	Gln	Glu	Leu	Glu	Asn	Lys	Ile	Glu	Lys	Val	Glu	Lys
	195					200						205			
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Thr	Ala	Thr	Leu	Arg	Lys	Thr	Ala	Ser	Glu	Asn	Ser	Gln	Arg	Ile	Asn

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225          230          235          240
Ser Val Lys Lys Thr Leu Thr Glu Leu Lys Ser Asp Phe Asp Lys His
          245          250          255
Thr Asp Arg Phe Leu Ser Leu Glu Gly Asp Arg Ala Lys Val Leu Lys
          260          265          270
Thr Val Thr Phe Ala Asn Asp Leu Lys Pro Lys Val Tyr Asn Leu Lys
          275          280          285
Lys Asp Phe Ser Arg Leu Glu Pro Leu Val Asn Asp Leu Thr Leu Arg
          290          295          300
Ile Gly Arg Leu Val Thr Asp Leu Leu Gln Arg Glu Lys Glu Ile Ala
305          310          315          320
Phe Leu Ser Glu Lys Ile Ser Asn Leu Thr Ile Val Gln Ala Glu Ile
          325          330          335
Lys Asp Ile Lys Asp Glu Ile Ala His Ile Ser Asp Met Asn
          340          345          350

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&lt;210&gt; 2913

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2913

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360
g
361

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&lt;210&gt; 2914

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2914

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1          5          10          15
Trp Val Met Ile Ser Lys Arg Trp Thr Arg Glu Ala Leu Asp Gly Phe
          20          25          30
Cys Asn Met Glu Ile Gly Ile Ile Ile Arg Asn Gly Ser Gln Asp Gly
          35          40          45
Pro Glu Pro Ser Ile Ser Gly Leu Lys Lys Leu His Pro Gln Leu Ser
50          55          60
Leu Ser Glu Asp Val His Ala Pro Gln Val Ala Asn Asp Thr Glu Ala
65          70          75          80
Gly Arg Lys Leu Asp Val Gly Pro Gln Leu Leu Asp Gln Leu Ala Gln

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 <211> 1782  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 2916

&lt;211&gt; 519

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2916

Gln	Glu	Asp	His	Leu	Lys	His	Leu	Arg	Thr	Leu	Glu	Lys	Thr	Leu	Glu
1				5					10					15	
Lys	Met	Glu	Arg	Gln	Lys	Arg	Gln	Gln	Gln	Ala	Ala	Gln	Ile	Arg	Leu
			20					25					30		
Ile	Gln	Glu	Val	Glu	Leu	Lys	Ala	Ser	Ala	Ala	Asp	Arg	Glu	Ile	Tyr
		35					40					45			
Leu	Leu	Arg	Thr	Ser	Leu	His	Arg	Glu	Arg	Glu	Gln	Ala	Gln	Gln	Leu
	50					55					60				
His	Gln	Leu	Leu	Ala	Leu	Lys	Glu	Gln	Glu	His	Arg	Lys	Glu	Leu	Glu
65					70				75						80
Thr	Arg	Glu	Phe	Phe	Thr	Asp	Ala	Asp	Phe	Gln	Asp	Ala	Leu	Ala	Lys
			85						90					95	
Glu	Ile	Ala	Lys	Glu	Glu	Lys	Lys	His	Glu	Gln	Met	Ile	Lys	Glu	Tyr
			100					105					110		
Gln	Glu	Lys	Ile	Asp	Val	Leu	Ser	Gln	Gln	Tyr	Met	Asp	Leu	Glu	Asn
		115					120					125			
Glu	Phe	Arg	Ile	Ala	Leu	Thr	Val	Glu	Ala	Arg	Arg	Phe	Gln	Asp	Val
	130					135					140				
Lys	Asp	Gly	Phe	Glu	Asn	Val	Ala	Thr	Glu	Leu	Ala	Lys	Ser	Lys	His
145					150					155					160
Ala	Leu	Ile	Trp	Ala	Gln	Arg	Lys	Glu	Asn	Glu	Ser	Ser	Ser	Leu	Ile
			165						170					175	
Lys	Asp	Leu	Thr	Cys	Met	Val	Lys	Glu	Gln	Lys	Thr	Lys	Leu	Ala	Glu
			180						185				190		
Val	Ser	Lys	Leu	Lys	Gln	Glu	Thr	Ala	Ala	Asn	Leu	Gln	Asn	Gln	Ile
		195					200					205			
Asn	Thr	Leu	Glu	Ile	Leu	Ile	Glu	Asp	Asp	Lys	Gln	Lys	Ser	Ile	Gln
	210					215						220			
Ile	Glu	Leu	Leu	Lys	His	Glu	Lys	Val	Gln	Leu	Ile	Ser	Glu	Leu	Ala
225				230						235					240
Ala	Lys	Glu	Ser	Leu	Ile	Phe	Gly	Leu	Arg	Thr	Glu	Arg	Lys	Val	Trp
			245						250					255	
Gly	His	Glu	Leu	Ala	Gln	Gln	Gly	Ser	Ser	Leu	Ala	Gln	Asn	Arg	Gly

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 275 280 285  
 Arg Lys Thr Asn Glu Ser Asp Ser Asp Ala Leu Arg Ile Lys Cys Lys  
 290 295 300  
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 340 345 350  
 Asp Glu Val Leu Glu Lys Leu Glu Arg His Asn Glu Arg Lys Glu Lys  
 355 360 365  
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 370 375 380  
 Lys Ala Tyr Ser Thr Leu Asn Arg Lys Trp His Asp Lys Gly Glu Leu  
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 Leu Cys His Leu Glu Thr Gln Val Lys Glu Val Lys Glu Lys Phe Glu  
 405 410 415  
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 420 425 430  
 Gln Lys Asn Ala Met Glu Lys Leu His Ser Met Asp Asp Ala Phe Lys  
 435 440 445  
 Arg Gln Val Asp Ala Ile Val Glu Ala His Gln Ala Glu Ile Ala Gln  
 450 455 460  
 Leu Ala Asn Glu Lys Gln Lys Cys Ile Asp Ser Ala Asn Leu Lys Val  
 465 470 475 480  
 His Gln Ile Glu Lys Glu Met Arg Glu Leu Leu Glu Glu Thr Cys Lys  
 485 490 495  
 Asn Lys Lys Thr Met Glu Ala Lys Ile Lys Gln Leu Ala Phe Ala Leu  
 500 505 510  
 Asn Glu Ile Gln Gln Asp Met  
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&lt;210&gt; 2917

&lt;211&gt; 2636

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2917

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<210> 2918

<211> 509

<212> PRT

<213> Homo sapiens

<400> 2918

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		20					25						30		
Met	Asp	Glu	Leu	Val	Pro	Leu	Gly	Glu	Leu	Thr	Lys	His	Ser	Thr	Ser
	35					40						45			
Ala	Val	Asp	Leu	Ser	Thr	Xaa	Phe	Ala	Gln	Ile	Ser	His	Thr	Ala	Arg
	50					55					60				
Gln	Leu	Asp	Trp	Pro	Asp	Pro	Glu	Glu	Ala	Phe	Met	Ile	Thr	Val	Lys
65				70					75					80	
Phe	Val	Glu	Asp	Thr	Cys	Arg	Leu	Ala	Leu	Val	Tyr	Cys	Ser	Leu	Ile
				85					90					95	
Lys	Ala	Arg	Ala	Arg	Glu	Leu	Ser	Ser	Gly	Gln	Lys	Asp	Gln	Gly	Gln
	100						105						110		
Ala	Ala	Asn	Met	Leu	Cys	Val	Val	Val	Asn	Asp	Met	Glu	Gln	Leu	Arg
	115						120						125		
Leu	Val	Ile	Gly	Lys	Leu	Pro	Ala	Gln	Leu	Ala	Trp	Glu	Ala	Leu	Glu
	130					135					140				
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His	Ala	Gln	Leu	Gln	Ser	Ala	Leu	Ala	Gly	Leu	Gly	His	Glu	Ile	Arg
				165					170					175	
Thr	Gly	Val	Arg	Thr	Leu	Ala	Glu	Gln	Leu	Glu	Val	Gly	Ile	Ala	Lys
	180						185						190		
His	Ile	Gln	Lys	Leu	Val	Gly	Val	Arg	Glu	Ser	Val	Leu	Pro	Glu	Asp
	195						200						205		
Ala	Ile	Leu	Pro	Leu	Met	Lys	Phe	Leu	Glu	Val	Glu	Leu	Cys	Tyr	Met



210	215	220
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225	230	235
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	245	250
Ser Ser Ser Leu Ala Ser Asn Arg Leu Lys Ile Ala Leu Gln Asn Leu		255
	260	265
Glu Ile Cys Phe His Ala Glu Gly Cys Gly Leu Pro Pro Lys Ala Leu		270
	275	280
His Thr Ala Thr Phe Gln Ala Leu Gln Arg Asp Leu Glu Leu Gln Ala		285
	290	295
Ala Ser Ser Arg Glu Leu Ile Arg Lys Tyr Phe Cys Ser Arg Ile Gln		300
305	310	315
Gln Gln Ala Glu Thr Thr Ser Glu Glu Leu Gly Ala Val Thr Val Lys		320
	325	330
Ala Ser Tyr Arg Ala Ser Glu Gln Lys Leu Arg Val Glu Leu Leu Ser		335
	340	345
Ala Ser Ser Leu Leu Pro Leu Asp Ser Asn Gly Ser Ser Asp Pro Phe		350
	355	360
Val Gln Leu Thr Leu Glu Pro Arg His Glu Phe Pro Glu Leu Ala Ala		365
	370	375
Arg Glu Thr Gln Lys His Lys Lys Asp Leu His Pro Leu Phe Asp Glu		380
385	390	395
Thr Phe Glu Phe Leu Val Pro Ala Glu Pro Cys Arg Lys Ala Gly Ala		400
	405	410
Cys Leu Leu Leu Thr Val Leu Asp Tyr Asp Thr Leu Gly Ala Asp Asp		415
	420	425
Leu Glu Gly Glu Ala Phe Leu Pro Leu Arg Glu Val Pro Gly Leu Ser		430
	435	440
Gly Ser Glu Glu Pro Gly Glu Val Pro Gln Thr Arg Leu Pro Leu Thr		445
	450	455
Tyr Pro Ala Pro Asn Gly Asp Pro Ile Leu Gln Leu Leu Glu Gly Arg		460
465	470	475
Lys Gly Asp Arg Glu Ala Gln Val Phe Val Arg Leu Arg Arg His Arg		480
	485	490
Ala Lys Gln Ala Ser Gln His Ala Leu Arg Pro Ala Pro		495
	500	505

&lt;210&gt; 2919

&lt;211&gt; 455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2919

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300

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<211> 143

<212> PRT

<213> Homo sapiens

<400> 2920

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Glu	Lys	Glu	Glu	Gly	Gly	Ser	Thr	Glu	Ala	Val	His	Ser	Gly	Leu	Ala
		20						25					30		
Arg	Gln	Val	Ser	Ser	Leu	Leu	Thr	Asn	His	Leu	Ala	Arg	Ala	Thr	Glu
		35					40					45			
Cys	Cys	Gly	Asn	Gln	Ala	Ala	Gly	Asn	Asp	Ala	Leu	Gln	Asp	Val	Leu
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Ser	Leu	Leu	Asn	Asp	Leu	Ser	Arg	Ser	His	Ile	Gly	Lys	Ala	Ile	Leu
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Ser	Gln	Pro	Ala	Cys	Val	Ser	Lys	Leu	Leu	Ser	Leu	Leu	Leu	Asp	Gln
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			100					105					110		
Ala	Leu	Pro	Leu	Met	Ser	Val	Glu	Asp	Cys	Gly	Asn	Val	Glu	Leu	Pro
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<210> 2921

<211> 1855

<212> DNA

<213> Homo sapiens

<400> 2921

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1855

&lt;210&gt; 2922

&lt;211&gt; 452

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2922

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Lys Ile Val Arg Ala Gln Gly Gln Tyr Met Tyr Asp Glu Gln Gly Ala
35           40           45
Glu Tyr Ile Asp Cys Ile Ser Asn Val Ala His Val Gly His Cys His
50           55           60
Pro Leu Val Val Gln Ala Ala His Glu Gln Asn Gln Val Leu Asn Thr
65           70           75           80
Asn Ser Arg Tyr Leu His Asp Asn Ile Val Asp Tyr Ala Gln Arg Leu
85           90           95
Ser Glu Thr Leu Pro Glu Gln Leu Cys Val Phe Tyr Phe Leu Asn Ser
100          105          110
Gly Ser Glu Ala Asn Asp Leu Ala Leu Arg Leu Ala Arg His Tyr Thr
115          120          125
Gly His Gln Asp Val Val Val Leu Asp His Ala Tyr His Gly His Leu
130          135          140
Ser Ser Leu Ile Asp Ile Ser Pro Tyr Lys Phe Arg Asn Leu Asp Gly
145          150          155          160
Gln Lys Glu Trp Val His Val Ala Pro Leu Pro Asp Thr Tyr Arg Gly
165          170          175
Pro Tyr Arg Xaa Arg Thr Thr Pro Thr Gln Leu Trp Xaa Tyr Ala Asn
180          185          190
Glu Val Lys Arg Val Val Ser Ser Ala Gln Glu Lys Gly Arg Lys Ile
195          200          205
Ala Ala Phe Phe Ala Glu Ser Leu Pro Ser Val Gly Gly Gln Ile Ile
210          215          220
Pro Pro Ala Gly Tyr Phe Ser Gln Val Ala Glu His Ile Arg Lys Ala
225          230          235          240
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245          250          255
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340          345          350
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355          360          365
Gly Val Asp Leu Ile Lys Asp Glu Ala Thr Arg Thr Pro Ala Thr Glu
370          375          380
Glu Ala Xaa Val Tyr Leu Val Ser Arg Leu Lys Glu Asn Tyr Val Leu
385          390          395          400
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405          410          415
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<212> DNA  
<213> Homo sapiens

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180  
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240  
cagccgcccc agcctcggct ccacccatag ccggaacggg atctccagga tggcagagaa  
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420  
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<212> PRT  
<213> Homo sapiens

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35 40 45  
Arg Arg Thr Gly Ser Thr Ala Ala Pro Ala Ser Ala Pro Pro Ile Ala  
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<210> 2925  
<211> 1999  
<212> DNA  
<213> Homo sapiens

&lt;400&gt; 2925

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120  
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360  
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420  
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480  
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<210> 2926

<211> 305

<212> PRT

<213> Homo sapiens

<400> 2926

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		20						25					30		
Ser	Gln	Val	Glu	Ser	Glu	Ser	Ser	Val	Leu	Asn	Asp	Ser	Pro	Phe	Pro
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Glu	Asp	Asp	Asn	Glu	Gly	Leu	His	Ser	Asp	Ser	Arg	Glu	Glu	Lys	Gln
		50				55					60				
Asn	Thr	Lys	Ser	Ala	Arg	Glu	Arg	Ala	Gly	Gln	Asp	Met	Gly	Leu	Glu
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His	Gly	Phe	Glu	Lys	Pro	Leu	Asp	Ser	Ala	Met	Ser	Ala	Glu	Glu	Asp
				85					90					95	
Thr	Asp	Val	Arg	Gly	Arg	Arg	Lys	Lys	Lys	Thr	Pro	Arg	Lys	Ala	Glu
			100					105					110		
Asp	Thr	Arg	Glu	Asn	Arg	Lys	Leu	Glu	Asn	Lys	Asn	Ala	Phe	Leu	Glu
		115					120					125			
Lys	Lys	Thr	Val	Pro	Lys	Lys	Gln	Arg	Asn	Gln	Asp	Arg	Ser	Lys	Ser
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Ala	Ala	Glu	Leu	Glu	Lys	Leu	Met	Pro	Val	Ser	Ala	Gln	Thr	Pro	Lys
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Gly	Arg	Arg	Leu	Ser	Gly	Glu	Glu	Arg	Gly	Leu	Trp	Ser	Thr	Asp	Ser
				165					170					175	
Ala	Glu	Glu	Asp	Lys	Glu	Thr	Lys	Arg	Asn	Glu	Ser	Lys	Glu	Lys	Tyr
			180					185					190		
Gln	Lys	Arg	His	Asp	Ser	Asp	Lys	Glu	Glu	Lys	Gly	Arg	Lys	Glu	Pro
		195					200					205			
Lys	Gly	Leu	Lys	Thr	Leu	Lys	Glu	Ile	Arg	Asn	Ala	Phe	Asp	Leu	Phe
		210				215						220			
Lys	Leu	Thr	Pro	Glu	Glu	Lys	Asn	Asp	Val	Ser	Glu	Asn	Asn	Arg	Lys
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<210> 2928  
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 <212> PRT  
 <213> Homo sapiens

<400> 2928

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Ser Leu Arg Pro Ala Thr Phe Ser Gly Val Asn Cys Leu Ala Tyr Asp
      35              40              45
Glu Ala Ile Met Ala Gln Gln Asp Arg Ile Gln Gln Glu Ile Ala Val
      50              55              60
Gln Asn Pro Leu Val Ser Glu Arg Leu Glu Leu Ser Val Leu Tyr Lys
      65              70              75              80
Glu Tyr Ala Glu Asp Asp Asn Ile Tyr Gln Lys Ile Lys Asp Leu
      85              90              95
His Lys Lys Tyr Ser Tyr Ile Arg Lys Thr Arg Pro Asp Gly Asn Cys
      100             105             110
Phe Tyr Arg Ala Phe Gly Phe Ser His Leu Glu Ala Leu Leu Asp Asp
      115             120             125
Ser Lys Glu Leu Gln Arg Phe Lys Ala Val Ser Ala Lys Ser Lys Glu
      130             135             140
Asp Leu Val Ser Gln Gly Phe Thr Glu Phe Thr Ile Glu Asp Phe His
      145             150             155             160
Asn Thr Phe Met Asp Leu Ile Glu Gln Val Glu Lys Gln Thr Ser Val
      165             170             175
Ala Asp Leu Leu Ala Ser Phe Asn Asp Gln Ser Thr Ser Asp Tyr Leu
      180             185             190
Val Val Tyr Leu Arg Leu Leu Thr Ser Gly Tyr Leu Gln Arg Glu Ser
      195             200             205
Lys Phe Phe Glu His Phe Ile Glu Gly Gly Arg Thr Val Lys Glu Phe
      210             215             220
Cys Gln Gln Glu Val Glu Pro Met Cys Lys Glu Ser Asp His Ile His
      225             230             235             240
Ile Ile Ala Leu Ala Gln Ala Leu Ser Val Ser Ile Gln Val Glu Tyr
      245             250             255
Met Asp Arg Gly Glu Gly Gly Thr Thr Asn Pro His Ile Phe Pro Glu
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<210> 2929  
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 <213> Homo sapiens

<400> 2929

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2520  
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2580  
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2700  
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2880  
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4740  
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<210> 2930  
 <211> 1166  
 <212> PRT  
 <213> Homo sapiens

<400> 2930

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Pro Lys Ala Lys Ala Pro Leu Pro Pro Ala Glu Thr Lys Tyr Thr Asp
      20           25           30
Val Ser Ser Ala Ala Asp Ser Val Glu Ser Thr Ala Phe Ile Met Glu
      35           40           45
Gln Lys Glu Asn Met Ile Asp Lys Asp Val Glu Leu Ser Val Val Leu
      50           55           60
Pro Gly Asp Ile Ile Lys Ser Thr Thr Val His Gly Ser Lys Pro Met
65           70           75           80
Met Asp Leu Leu Ile Phe Leu Cys Ala Gln Tyr His Leu Asn Pro Ser
      85           90           95
Ser Tyr Thr Ile Asp Leu Leu Ser Ala Glu Gln Asn His Ile Lys Phe
      100          105          110
Lys Pro Asn Thr Pro Ile Gly Met Leu Glu Val Glu Lys Val Ile Leu
      115          120          125
Lys Pro Lys Met Leu Asp Lys Lys Lys Pro Thr Pro Ile Ile Pro Glu
      130          135          140
Lys Thr Val Arg Val Val Ile Asn Phe Lys Lys Thr Gln Lys Thr Ile
145          150          155          160
Val Arg Val Ser Pro His Ala Ser Leu Gln Glu Leu Ala Pro Ile Ile
      165          170          175
Cys Ser Lys Cys Glu Phe Asp Pro Leu His Thr Leu Leu Leu Lys Asp
      180          185          190
Tyr Gln Ser Gln Glu Pro Leu Asp Leu Thr Lys Ser Leu Asn Asp Leu
      195          200          205
Gly Leu Arg Glu Leu Tyr Ala Met Asp Val Asn Arg Glu Ser Cys Gln
      210          215          220
Ile Ser Gln Asn Leu Asp Ile Met Lys Glu Lys Glu Asn Lys Gly Phe
225          230          235          240
Phe Ser Phe Phe Gln Arg Ser Lys Lys Lys Arg Asp Gln Thr Ala Ser
      245          250          255
Ala Pro Ala Thr Pro Leu Val Asn Lys His Arg Pro Thr Phe Thr Arg
      260          265          270
Ser Asn Thr Ile Ser Lys Pro Tyr Ile Ser Asn Thr Leu Pro Ser Asp
      275          280          285
Ala Pro Lys Lys Arg Arg Ala Pro Leu Pro Pro Met Pro Ala Ser Gln
      290          295          300
Ser Val Pro Gln Asp Leu Ala His Ile Gln Glu Arg Pro Ala Ser Cys
305          310          315          320
Ile Val Lys Ser Met Ser Val Asp Glu Thr Asp Lys Ser Pro Cys Glu
      325          330          335
Ala Gly Arg Val Arg Ala Gly Ser Leu Gln Leu Ser Ser Met Ser Ala
      340          345          350
Gly Asn Ser Ser Leu Arg Arg Thr Lys Arg Lys Ala Pro Ser Pro Pro
      355          360          365
Ser Lys Ile Pro Pro His Gln Ser Asp Glu Asn Ser Arg Val Thr Ala

```

370		375		380
Leu Gln Pro Val Asp Gly	Val Pro Pro Asp Ser Ala Ser Glu Ala Asn			
385	390	395	400	
Ser Pro Glu Glu Leu Ser	Ser Pro Glu Thr Phe His Pro Gly Leu Ser			
405	410	415		
Ser Gln Glu Gln Cys Thr	Ala Pro Lys Leu Met Glu Glu Thr Ser Val			
420	425	430		
Phe Glu Cys Pro Gly Thr	Pro Glu Ala Ala Ile Thr Ser Leu Thr Ser			
435	440	445		
Gly Ile Ser Ser Asp Tyr	Ser Leu Glu Glu Ile Asp Glu Lys Glu Glu			
450	455	460		
Leu Ser Glu Val Pro Lys	Val Glu Ala Glu Asn Ile Ser Pro Lys Ser			
465	470	475	480	
Gln Asp Ile Pro Phe Val	Ser Thr Asp Ile Ile Asn Thr Leu Lys Asn			
485	490	495		
Asp Pro Asp Ser Ala Leu	Gly Asn Gly Ser Gly Glu Phe Ser Gln Asn			
500	505	510		
Ser Met Glu Glu Lys Gln	Glu Thr Lys Ser Thr Asp Gly Gln Glu Pro			
515	520	525		
His Ser Val Val Tyr Asp	Thr Ser Asn Gly Lys Lys Val Val Asp Ser			
530	535	540		
Ile Arg Asn Leu Lys Ser	Leu Gly Pro Asn Gln Glu Asn Val Gln Asn			
545	550	555	560	
Glu Ile Ile Val Tyr Pro	Glu Asn Thr Glu Asp Asn Met Lys Asn Gly			
565	570	575		
Val Lys Lys Thr Glu Ile	Asn Val Glu Gly Val Ala Lys Asn Asn Asn			
580	585	590		
Ile Asp Met Glu Val Glu	Arg Pro Ser Asn Ser Glu Ala His Glu Thr			
595	600	605		
Asp Thr Ala Ile Ser Tyr	Lys Glu Asn His Leu Ala Ala Ser Ser Val			
610	615	620		
Pro Asp Gln Lys Leu Asn	Gln Pro Ser Ala Glu Lys Thr Lys Asp Ala			
625	630	635	640	
Ala Ile Gln Thr Thr Pro	Ser Cys Asn Ser Phe Asp Gly Lys His Gln			
645	650	655		
Asp His Asn Leu Ser Asp	Ser Lys Val Glu Glu Cys Val Gln Thr Ser			
660	665	670		
Asn Asn Asn Ile Ser Thr	Gln His Ser Cys Leu Ser Ser Gln Asp Ser			
675	680	685		
Val Asn Thr Ser Arg Glu	Phe Arg Ser Gln Gly Thr Leu Ile Ile His			
690	695	700		
Ser Glu Asp Pro Leu Thr	Val Lys Asp Pro Ile Cys Ala His Gly Asn			
705	710	715	720	
Asp Asp Leu Leu Pro Pro	Val Asp Arg Ile Asp Lys Asn Ser Thr Ala			
725	730	735		
Ser Tyr Leu Lys Asn Tyr	Pro Leu Tyr Arg Gln Asp Tyr Asn Pro Lys			
740	745	750		
Pro Lys Pro Ser Asn Glu	Ile Thr Arg Glu Tyr Ile Pro Lys Ile Gly			
755	760	765		
Met Thr Thr Tyr Lys Ile	Val Pro Pro Lys Ser Leu Glu Ile Ser Lys			
770	775	780		
Asp Trp Gln Ser Glu Thr	Ile Glu Tyr Lys Asp Asp Gln Asp Met His			
785	790	795	800	
Ala Leu Gly Lys Lys His	Thr His Glu Asn Val Lys Glu Thr Ala Ile			

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      805      810      815
Gln Thr Glu Asp Ser Ala Ile Ser Glu Ser Pro Glu Glu Pro Leu Pro
      820      825      830
Asn Leu Lys Pro Lys Pro Asn Leu Arg Thr Glu His Gln Val Pro Ser
      835      840      845
Ser Val Ser Ser Pro Asp Asp Ala Met Val Ser Pro Leu Lys Pro Ala
      850      855      860
Pro Lys Met Thr Arg Asp Thr Gly Thr Ala Pro Phe Ala Pro Asn Leu
865      870      875      880
Glu Glu Ile Asn Asn Ile Leu Glu Ser Lys Phe Lys Ser Arg Ala Ser
      885      890      895
Asn Ala Gln Ala Lys Pro Ser Ser Phe Phe Leu Gln Met Gln Lys Arg
      900      905      910
Val Ser Gly His Tyr Val Thr Ser Ala Ala Ala Lys Ser Val His Ala
      915      920      925
Ala Pro Asn Pro Ala Pro Lys Glu Leu Thr Asn Lys Glu Ala Glu Arg
      930      935      940
Asp Met Leu Pro Ser Pro Glu Gln Thr Leu Ser Pro Leu Ser Lys Met
945      950      955      960
Pro His Ser Val Pro Gln Pro Leu Val Glu Lys Thr Asp Asp Asp Val
      965      970      975
Ile Gly Gln Ala Pro Ala Glu Ala Ser Pro Pro Pro Ile Ala Pro Lys
      980      985      990
Pro Val Thr Ile Pro Ala Ser Gln Val Ser Thr Gln Asn Leu Lys Thr
      995      1000      1005
Leu Lys Thr Phe Gly Ala Pro Arg Pro Tyr Ser Ser Ser Gly Pro Ser
      1010      1015      1020
Pro Phe Ala Leu Ala Val Val Lys Arg Ser Gln Ser Phe Ser Lys Glu
1025      1030      1035      1040
Arg Thr Glu Ser Pro Ser Ala Ser Ala Leu Val Gln Pro Pro Ala Asn
      1045      1050      1055
Thr Glu Glu Gly Lys Thr His Ser Val Asn Lys Phe Val Asp Ile Pro
      1060      1065      1070
Gln Leu Gly Val Ser Asp Lys Glu Asn Asn Ser Ala His Asn Glu Gln
      1075      1080      1085
Asn Ser Gln Ile Pro Thr Pro Thr Asp Gly Pro Ser Phe Thr Val Met
      1090      1095      1100
Arg Gln Ser Ser Leu Thr Phe Gln Ser Ser Asp Pro Glu Gln Met Arg
1105      1110      1115      1120
Gln Ser Leu Leu Thr Ala Ile Arg Ser Gly Glu Ala Ala Ala Lys Leu
      1125      1130      1135
Lys Arg Val Thr Ile Pro Ser Asn Thr Ile Ser Val Asn Gly Arg Ser
      1140      1145      1150
Arg Leu Ser His Ser Met Ser Pro Asp Ala Gln Asp Gly His
      1155      1160      1165

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&lt;210&gt; 2931

&lt;211&gt; 625

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2931

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 120  
 ttagagatct tcgaagccat attttctcca gatgttttgg gatgaggaga cacaacaaca  
 180  
 gtgttttttag gttcactctg atgagttgcc atgaaatcaa accaatctaa actgtcatct  
 240  
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 300  
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 360  
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 480  
 aagcagcagt ctctgctgat aaaccagact cagtactgac tcatcatgtc cccaggaacc  
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<210> 2932

<211> 90

<212> PRT

<213> Homo sapiens

<400> 2932

Met	Cys	Glu	Pro	Gly	Gln	Arg	Ser	Lys	Val	Asp	Ile	Gly	Leu	Leu	Pro
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Ser	Pro	Gly	Glu	Thr	Gly	Val	Pro	Trp	Arg	Ala	Asp	Asn	Val	Glu	Ser
		20					25					30			
Asn	Lys	Lys	Lys	Arg	Leu	Ala	Leu	Asp	Ser	Glu	Ala	Ala	Val	Ser	Ala
		35				40						45			
Asp	Lys	Pro	Asp	Ser	Val	Leu	Thr	His	His	Val	Pro	Arg	Asn	Leu	Gln
	50					55				60					
Lys	Leu	Cys	Lys	Glu	Arg	Ala	Gln	Lys	Leu	Cys	Arg	Asn	Ser	Thr	Arg
65				70					75					80	
Val	Pro	Ala	Gln	Cys	Thr	Val	Pro	Ser	Arg						
			85						90						

<210> 2933

<211> 688

<212> DNA

<213> Homo sapiens

<400> 2933

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 120  
 cgagaaagtc aagaaacgac tagagaactt ctgaaagtta aagacagatt aattgaagta  
 180  
 gaaagaaata atgctacact gcaagcagag aagcaagcgt tgaaaactca actgaagcaa  
 240



cttgagacac agaacaataa tttgcaggct cagattcttg cacttcagag gcagacagtg  
 300  
 tcattacaag aacagaatac cactcttcaa acacagaatg ccaagcttca ggttgaaaat  
 360  
 tccaccctta attcccaaag tacctcactc atgaaccaga atgcccaact cctaattccag  
 420  
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 480  
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 540  
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 600  
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 660  
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 688

<210> 2934

<211> 229

<212> PRT

<213> Homo sapiens

<400> 2934

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Lys	Gln	Arg	Gln	Asp	Glu	Glu	Arg	Met	Val	Gln	Ser	Ser	Pro	Pro	Ile
			20					25					30		
Ser	Gly	Glu	Asp	Asn	Lys	Trp	Glu	Arg	Glu	Ser	Gln	Glu	Thr	Thr	Arg
	35					40						45			
Glu	Leu	Leu	Lys	Val	Lys	Asp	Arg	Leu	Ile	Glu	Val	Glu	Arg	Asn	Asn
50					55					60					
Ala	Thr	Leu	Gln	Ala	Glu	Lys	Gln	Ala	Leu	Lys	Thr	Gln	Leu	Lys	Gln
65					70					75					80
Leu	Glu	Thr	Gln	Asn	Asn	Asn	Leu	Gln	Ala	Gln	Ile	Leu	Ala	Leu	Gln
				85					90					95	
Arg	Gln	Thr	Val	Ser	Leu	Gln	Glu	Gln	Asn	Thr	Thr	Leu	Gln	Thr	Gln
			100					105					110		
Asn	Ala	Lys	Leu	Gln	Val	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Gln	Ser	Thr
	115					120					125				
Ser	Leu	Met	Asn	Gln	Asn	Ala	Gln	Leu	Leu	Ile	Gln	Gln	Ser	Ser	Leu
130					135					140					
Glu	Asn	Glu	Asn	Glu	Ser	Val	Ile	Lys	Glu	Arg	Glu	Asp	Leu	Lys	Ser
145					150					155					160
Leu	Tyr	Asp	Ser	Leu	Ile	Lys	Asp	His	Glu	Lys	Leu	Glu	Leu	Leu	His
				165					170					175	
Glu	Arg	Gln	Ala	Ser	Glu	Tyr	Glu	Ser	Leu	Ile	Ser	Lys	His	Gly	Thr
			180					185					190		
Leu	Lys	Ser	Ala	His	Lys	Asn	Leu	Glu	Val	Glu	His	Arg	Asp	Leu	Glu
	195					200						205			
Asp	Arg	Tyr	Asn	Gln	Leu	Leu	Lys	Gln	Lys	Gly	Gln	Leu	Glu	Asp	Leu
210					215						220				
Glu	Lys	Met	Leu	Lys											
225															

<210> 2935  
<211> 1200  
<212> DNA  
<213> Homo sapiens

<400> 2935  
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120  
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180  
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240  
cgcagctatt tacgttcaga gtgaaatggg ctgtgtggct gggattggga aaggccttgt  
300  
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360  
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420  
aaatccacgc cctctagggg ctcatcatcc aagtcgtcct caaggcagct aagcgagagc  
480  
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540  
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600  
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660  
gccttctcac accccccgga agtcagcagg gaaacgcaga gaactcctat gaaccaccaa  
720  
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780  
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900  
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960  
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1020  
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1080  
aggaaaaaat caggggatct taaaaaagcc aaggtagcagg tggaaaggat gagggagggt  
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<210> 2936  
<211> 109  
<212> PRT  
<213> Homo sapiens

<400> 2936  
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      20             25             30
Val Lys Val Lys Met Glu Lys Lys Ser Thr Pro Ser Arg Gly Ser Ser
      35             40             45
Ser Lys Ser Ser Ser Arg Gln Leu Ser Glu Ser Phe Lys Ser Lys Glu
      50             55             60
Phe Val Ser Ser Asp Glu Ser Ser Ser Gly Glu Asn Lys Ser Lys Lys
      65             70             75             80
Lys Arg Arg Arg Ser Glu Asp Ser Glu Glu Glu Glu Leu Ala Ser Thr
      85             90             95
Pro Pro Ser Ser Glu Asp Ser Ala Ser Gly Ser Asp Glu
      100             105

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&lt;210&gt; 2937

&lt;211&gt; 749

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2937

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120
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180
gccccgggtgg tggaccccgga ggtgccttca ccacagtcca aggatgcca gtacacagt
240
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300
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360
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420
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480
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540
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600
ccacttatgg ttgaagccat cctgtcagta tccatcggct gtgtaactgc caggtccacc
660
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720
agttatcagg aagaagactt aaactgcag
749

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&lt;210&gt; 2938

&lt;211&gt; 249

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2938

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Xaa Asn Ser Ser Glu Ser Gly Ser Leu Glu Val Val Asp Ser Ser Gly

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Glu Ile Ile His Arg Val Lys Lys Leu Thr Cys Arg Val Lys Ile Lys
      20           25           30
Glu Ala Thr Gly Leu Pro Leu Asn Leu Ser Asn Phe Val Phe Cys Gln
      35           40           45
Tyr Thr Phe Trp Asp Gln Cys Glu Ser Thr Val Ala Ala Pro Val Val
      50           55           60
Asp Pro Glu Val Pro Ser Pro Gln Ser Lys Asp Ala Gln Tyr Thr Val
      65           70           75           80
Thr Phe Ser His Cys Lys Asp Tyr Val Val Asn Val Thr Glu Glu Phe
      85           90           95
Leu Glu Phe Ile Ser Asp Gly Ala Leu Ala Ile Glu Val Trp Gly His
      100          105          110
Arg Cys Ala Gly Asn Gly Ser Ser Ile Trp Glu Val Asp Ser Leu His
      115          120          125
Ala Lys Thr Arg Thr Leu His Asp Arg Trp Asn Glu Val Thr Arg Arg
      130          135          140
Ile Glu Met Trp Ile Ser Ile Leu Glu Leu Asn Glu Leu Gly Glu Tyr
      145          150          155          160
Ala Ala Val Glu Leu His Gln Ala Lys Asp Val Asn Thr Gly Gly Ile
      165          170          175
Phe Gln Leu Arg Gln Gly His Ser Arg Arg Val Gln Val Thr Val Lys
      180          185          190
Pro Val Gln His Ser Gly Thr Leu Pro Leu Met Val Glu Ala Ile Leu
      195          200          205
Ser Val Ser Ile Gly Cys Val Thr Ala Arg Ser Thr Lys Leu Gln Arg
      210          215          220
Gly Leu Asp Ser Tyr Gln Arg Asp Asp Glu Asp Gly Asp Asp Met Asp
      225          230          235          240
Ser Tyr Gln Glu Glu Asp Leu Asn Cys
      245

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&lt;210&gt; 2939

&lt;211&gt; 2405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2939

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240
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300
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 2405

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<211> 357

<212> PRT

<213> Homo sapiens

<400> 2940

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Pro	Gly	Gln	Thr	Pro	Glu	Ala	Ala	Lys	Thr	His	Ser	Val	Glu	Thr	Pro	20	25	30	
Tyr	Gly	Ser	Val	Thr	Phe	Thr	Val	Tyr	Gly	Thr	Pro	Lys	Pro	Lys	Arg	35	40	45	
Pro	Ala	Ile	Leu	Thr	Tyr	His	Asp	Val	Gly	Leu	Asn	Tyr	Lys	Ser	Cys	50	55	60	
Phe	Gln	Pro	Leu	Phe	Gln	Phe	Glu	Asp	Met	Gln	Glu	Ile	Ile	Gln	Asn	65	70	75	80
Phe	Val	Arg	Val	His	Val	Asp	Ala	Pro	Gly	Met	Glu	Glu	Gly	Ala	Pro	85	90	95	
Val	Phe	Pro	Leu	Gly	Tyr	Gln	Tyr	Pro	Ser	Leu	Asp	Gln	Leu	Ala	Asp	100	105	110	
Met	Ile	Pro	Cys	Val	Leu	Gln	Tyr	Leu	Asn	Phe	Ser	Thr	Ile	Ile	Gly	115	120	125	
Val	Gly	Val	Gly	Ala	Gly	Ala	Tyr	Ile	Leu	Ala	Arg	Tyr	Ala	Leu	Asn	130	135	140	
His	Pro	Asp	Thr	Val	Glu	Gly	Leu	Val	Leu	Ile	Asn	Ile	Asp	Pro	Asn	145	150	155	160
Ala	Lys	Gly	Trp	Met	Asp	Trp	Ala	Ala	His	Lys	Leu	Thr	Gly	Leu	Thr	165	170	175	
Ser	Ser	Ile	Pro	Glu	Met	Ile	Leu	Gly	His	Leu	Phe	Ser	Gln	Glu	Glu	180	185	190	
Leu	Ser	Gly	Asn	Ser	Glu	Leu	Ile	Gln	Lys	Tyr	Arg	Asn	Ile	Ile	Thr	195	200	205	
His	Ala	Pro	Asn	Leu	Asp	Asn	Ile	Glu	Leu	Tyr	Trp	Asn	Ser	Tyr	Asn	210	215	220	
Asn	Arg	Arg	Asp	Leu	Asn	Phe	Glu	Arg	Gly	Gly	Asp	Ile	Thr	Leu	Arg	225	230	235	240
Cys	Pro	Val	Met	Leu	Val	Val	Gly	Asp	Gln	Ala	Pro	His	Glu	Asp	Ala	245	250	255	
Val	Val	Glu	Cys	Asn	Ser	Lys	Leu	Asp	Pro	Thr	Gln	Thr	Ser	Phe	Leu	260	265	270	
Lys	Met	Ala	Asp	Ser	Gly	Gly	Gln	Pro	Gln	Leu	Thr	Gln	Pro	Gly	Lys				

275	280	285
Leu Thr Glu Ala Phe Lys Tyr Phe Leu Gln Gly Met Gly Tyr Met Ala		
290	295	300
Ser Ser Cys Met Thr Arg Leu Ser Arg Ser Arg Thr Ala Ser Leu Thr		
305	310	315
Ser Ala Ala Ser Val Asp Gly Asn Arg Ser Arg Ser Arg Thr Leu Ser		
325	330	335
Gln Ser Ser Glu Ser Gly Thr Leu Ser Ser Gly Pro Pro Gly His Thr		
340	345	350
Met Glu Val Ser Cys		
355		

&lt;210&gt; 2941

&lt;211&gt; 847

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2941

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 840  
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 847

&lt;210&gt; 2942

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2942

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 20 25 30  
 Gly Arg Gly His Asp His Leu Ala Gly Ala Ser Pro Thr Ala Arg Gln  
 35 40 45  
 His Leu Phe Lys Gln Gly Gln Leu Ser Ala Gln Gly Gly Ala Gln Pro  
 50 55 60  
 Ser Val Glu Ala Pro Ala Ala Pro Arg Pro Thr Ala Thr Gln Leu Thr  
 65 70 75 80  
 Arg Asp Leu Leu Arg Ser Arg Gly Ile Ala Gly Leu Tyr Lys Gly Leu  
 85 90 95  
 Gly Ala Thr Leu Leu Arg Asp Val Pro Phe Ser Val Val Tyr Phe Pro  
 100 105 110  
 Leu Phe Ala Asn Leu Asn Gln Leu Gly Arg Pro Ala Ser Glu Glu Lys  
 115 120 125  
 Ser Pro Phe Tyr Val Ser Phe Leu Ala Gly Cys Val Ala Gly Ser Ala  
 130 135 140  
 Ala Ala Val Ala Val Asn Pro Cys Asp Val Val Lys Thr Arg Leu Gln  
 145 150 155 160  
 Ser Leu Gln Arg Gly Val Asn Glu Asp Thr Tyr Ser Gly Ile Leu Asp  
 165 170 175  
 Cys Ala Arg Lys Ile Leu Arg His Glu Gly Pro Ser Ala Phe Leu Lys  
 180 185 190  
 Gly Ala Tyr Cys Arg Ala Leu Val Ile Ala Pro Leu Phe Gly Ile Ala  
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 Gln Val Val Tyr Phe Leu Gly Ile Ala Glu Ser Leu Leu Gly Leu Leu  
 210 215 220  
 Gln Asp Pro Gln Ala  
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&lt;210&gt; 2943

&lt;211&gt; 1501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2943

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 180  
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 300  
 aagaagatga gagagggtcc tgcaaagaat atgggtcaagc agaaagcctt gcgagtttta  
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 420  
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 480



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 a  
 1501

&lt;210&gt; 2944

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2944

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Leu	Thr	Asp	Cys	Ile	Gly	Thr	Val	Asp	Ser	Arg	Ala	Glu	Ser	Ile	Asp
			20					25					30		
Lys	Lys	Ile	Ser	Arg	Leu	Asp	Ala	Glu	Leu	Val	Lys	Tyr	Lys	Asp	Gln
			35				40					45			
Ile	Lys	Lys	Met	Arg	Glu	Gly	Pro	Ala	Lys	Asn	Met	Val	Lys	Gln	Lys
			50			55				60					
Ala	Leu	Arg	Val	Leu	Lys	Gln	Lys	Arg	Met	Tyr	Glu	Gln	Gln	Arg	Asp
65					70					75				80	
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<210> 2945
<211> 3331
<212> DNA
<213> Homo sapiens
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900

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2280  
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2340  
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2460  
aggtgcccta agcaggagaa actgaacaaa aggctagagg catgggccag gtaaaaattg  
2520

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 2580  
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 2640  
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 2700  
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 2760  
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 2820  
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 2880  
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 3240  
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 3331

&lt;210&gt; 2946

&lt;211&gt; 463

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2946

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Pro	Ala	Val	Gly	Pro	Thr	Val	Ser	Asn	Met	Ser	Gly	Leu	Asp	Gly	Val
			20					25					30		
Lys	Arg	Thr	Thr	Pro	Leu	Gln	Thr	His	Ser	Ile	Ile	Ile	Ser	Asp	Gln
		35					40					45			
Val	Pro	Ser	Asp	Gln	Asp	Ala	His	Gln	Tyr	Leu	Arg	Leu	Arg	Asp	Gln
	50					55				60					
Ser	Glu	Ala	Thr	Gln	Val	Met	Ala	Glu	Pro	Gly	Glu	Gly	Gly	Ser	Glu
65				70					75					80	
Thr	Val	Ala	Leu	Pro	Pro	Pro	Pro	Pro	Ser	Glu	Glu	Gly	Gly	Val	Pro
			85					90						95	
Gln	Asp	Ala	Ala	Gly	Arg	Gly	Gly	Thr	Pro	Gln	Ile	Arg	Val	Val	Gly
		100					105						110		
Gly	Arg	Gly	His	Val	Ala	Ile	Lys	Ala	Gly	Gln	Glu	Glu	Gly	Gln	Pro
	115					120						125			
Pro	Ala	Glu	Gly	Leu	Ala	Ala	Ala	Ser	Val	Val	Met	Ala	Ala	Asp	Arg
	130					135					140				
Ser	Leu	Lys	Lys	Gly	Val	Gln	Gly	Gly	Glu	Lys	Ala	Leu	Glu	Ile	Cys

145		150		155		160
Gly	Ala	Gln	Arg	Ser	Ala	Glu
		165		170		175
Ala	Glu	Glu	Val	Lys	Thr	Gly
		180		185		190
Ala	Glu	Arg	Glu	Ser	Ala	Glu
		195		200		205
Lys	Glu	Val	Met	Glu	Glu	Gln
		210		215		220
Gly	Glu	Glu	Ile	Glu	Val	Ala
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Pro	Leu	Glu	Ala	Ile	Gln	Leu
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Asp	Arg	Ala	Phe	Gln	Gln	Leu
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His	Tyr	Leu	Glu	Arg	Arg	Asn
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Arg	Asn	Pro	Tyr	Phe	Arg	Asn
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Cys	Ser	Phe	Phe	Thr	Trp	Phe
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Lys	Ile	Ala	Glu	Ile	Ile	Lys
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&lt;210&gt; 2947

&lt;211&gt; 997

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2947

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&lt;210&gt; 2948

&lt;211&gt; 332

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2948

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&lt;211&gt; 880

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2949

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<211> 279

<212> PRT

<213> Homo sapiens

<400> 2950

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<211> 3478

<212> DNA

<213> Homo sapiens

<400> 2951



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<211> 493

<212> PRT

<213> Homo sapiens

<400> 2952

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<211> 181

<212> PRT

<213> Homo sapiens

<400> 2954

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Val	Trp	Leu	Thr	Tyr	Trp	Val	Val	Tyr	Ala	Leu	Phe	Gly	Leu	Ala	Glu
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Phe	Phe	Ser	Asp	Leu	Leu	Leu	Ser	Trp	Phe	Pro	Phe	Tyr	Tyr	Val	Gly
			100					105					110		
Lys	Cys	Ala	Phe	Leu	Leu	Phe	Cys	Met	Ala	Pro	Arg	Pro	Trp	Asn	Gly
			115				120					125			
Ala	Leu	Met	Leu	Tyr	Gln	Arg	Val	Val	Arg	Pro	Leu	Phe	Leu	Arg	His
			130			135					140				
His	Gly	Ala	Val	Asp	Arg	Ile	Met	Asn	Asp	Leu	Ser	Gly	Arg	Ala	Leu
145				150						155				160	
Asp	Ala	Ala	Ala	Gly	Ile	Thr	Arg	Asn	Val	Lys	Pro	Ser	Gln	Thr	Pro
			165					170					175		
Gln	Pro	Lys	Asp	Lys											
			180												

&lt;210&gt; 2955

&lt;211&gt; 295

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2955

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 120  
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 180  
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 295

&lt;210&gt; 2956

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2956

Met	Phe	Ser	Leu	Ala	Gln	Leu	Thr	Thr	Pro	Gln	Cys	Leu	Gln	Met	Cys
1				5					10				15		
Tyr	His	Leu	Thr	Val	His	Leu	Phe	Leu	Ser	Cys	Val	Phe	Met	Ser	Ile
			20					25				30			
Ser	Gln	Gly	Met	Pro	Cys	Pro	Cys	Leu	Thr	Phe	Pro	Leu	Phe	Trp	His
		35				40					45				
Ile	Asn	Ser	Tyr	Phe	Pro	Ile	Ser	His	Tyr	Lys	Gly	His	Thr	Val	Leu
	50					55					60				
Pro	Leu	Pro	Leu	Ser	Ser	Lys	Ile	Ala	Ser	Pro	Pro	Phe	Ser	Leu	Ile
65					70					75				80	
Ile	Gly	Ile	Ser	Lys	Gln	Ala	Ala	Ala	Gln	Ala					
				85					90						

&lt;210&gt; 2957

&lt;211&gt; 4724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2957

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 120  
 tgtgggggaa gacctgatac cgccaggccc cgaagccctt caggagccag tcggtggggg  
 180  
 tcctcactta cagggtaaaa acgggtctc tgaggtgggc cctgaccagg aaacgctgag  
 240  
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 300  
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 360

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 4724

&lt;210&gt; 2958

&lt;211&gt; 1047

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2958

Met	Ala	Val	Thr	Leu	Asp	Lys	Asp	Ala	Tyr	Tyr	Arg	Arg	Val	Lys	Arg
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Leu	Tyr	Ser	Asn	Trp	Arg	Lys	Gly	Glu	Asp	Glu	Tyr	Ala	Asn	Val	Asp
			20					25					30		
Ala	Ile	Val	Val	Ser	Val	Gly	Val	Asp	Glu	Glu	Ile	Val	Tyr	Ala	Lys
			35				40					45			
Ser	Thr	Ala	Leu	Gln	Thr	Trp	Leu	Phe	Gly	Tyr	Glu	Leu	Thr	Asp	Thr
	50					55					60				
Ile	Met	Val	Phe	Cys	Asp	Asp	Lys	Ile	Ile	Phe	Met	Ala	Ser	Lys	Lys

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65          70          75          80
Lys Val Glu Phe Leu Lys Gln Ile Ala Asn Thr Lys Gly Asn Glu Asn
                      85          90          95
Ala Asn Gly Ala Pro Ala Ile Thr Leu Leu Ile Arg Glu Lys Asn Glu
                      100          105          110
Ser Asn Lys Ser Ser Phe Asp Lys Met Ile Glu Ala Ile Lys Glu Ser
                      115          120          125
Lys Asn Gly Lys Lys Ile Gly Val Phe Ser Lys Asp Lys Phe Pro Gly
                      130          135          140
Glu Phe Met Lys Ser Trp Asn Asp Cys Leu Asn Lys Glu Gly Phe Asp
145          150          155          160
Lys Ile Asp Ile Ser Ala Val Val Ala Tyr Thr Ile Ala Val Lys Glu
                      165          170          175
Asp Gly Glu Leu Asn Leu Met Lys Lys Ala Ala Ser Ile Thr Ser Glu
                      180          185          190
Val Phe Asn Lys Phe Phe Lys Glu Arg Val Met Glu Ile Val Asp Ala
                      195          200          205
Asp Glu Lys Val Arg His Ser Lys Leu Ala Glu Ser Val Glu Lys Ala
210          215          220
Ile Glu Glu Lys Lys Tyr Leu Ala Gly Ala Asp Pro Ser Thr Val Glu
225          230          235          240
Met Cys Tyr Pro Pro Ile Ile Gln Ser Gly Gly Asn Tyr Asn Leu Lys
                      245          250          255
Phe Ser Val Val Ser Asp Lys Asn His Met His Phe Gly Ala Ile Thr
                      260          265          270
Cys Ala Met Gly Ile Arg Phe Lys Ser Tyr Cys Ser Asn Leu Val Arg
275          280          285
Thr Leu Met Val Asp Pro Ser Gln Glu Val Gln Glu Asn Tyr Asn Phe
290          295          300
Leu Leu Gln Leu Gln Glu Glu Leu Leu Lys Glu Leu Arg His Gly Val
305          310          315          320
Lys Ile Cys Asp Val Tyr Asn Ala Val Met Asp Val Val Lys Lys Gln
                      325          330          335
Lys Pro Glu Leu Leu Asn Lys Ile Thr Lys Asn Leu Gly Phe Gly Met
                      340          345          350
Gly Ile Glu Phe Arg Glu Gly Ser Leu Val Ile Asn Ser Lys Asn Gln
355          360          365
Tyr Lys Leu Lys Lys Gly Met Val Phe Ser Ile Asn Leu Gly Phe Ser
370          375          380
Asp Leu Thr Asn Lys Glu Gly Lys Lys Pro Glu Glu Lys Thr Tyr Ala
385          390          395          400
Leu Phe Ile Gly Asp Thr Val Leu Val Asp Glu Asp Gly Pro Ala Thr
                      405          410          415
Val Leu Thr Ser Val Lys Lys Lys Val Lys Asn Val Gly Ile Phe Leu
420          425          430
Lys Asn Glu Asp Glu Glu Glu Glu Glu Glu Lys Asp Glu Ala Glu
435          440          445
Asp Leu Leu Gly Arg Gly Ser Arg Ala Ala Leu Leu Thr Glu Arg Thr
450          455          460
Arg Asn Glu Met Thr Ala Glu Glu Lys Arg Arg Ala His Gln Lys Glu
465          470          475          480
Leu Ala Ala Gln Leu Asn Glu Glu Ala Lys Arg Arg Leu Thr Glu Gln
                      485          490          495
Lys Gly Glu Gln Gln Ile Gln Lys Ala Arg Lys Ser Asn Val Ser Tyr

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Val	Glu	Gly	Asp	Tyr	Thr	Tyr	Leu	Arg	Ile	Asn	Phe	Tyr	Cys	Pro	Gly
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Ser	Ala	Leu	Gly	Arg	Asn	Glu	Gly	Asn	Ile	Phe	Pro	Asn	Pro	Glu	Ala
580				585				590							
Thr	Phe	Val	Lys	Glu	Ile	Thr	Tyr	Arg	Ala	Ser	Asn	Ile	Lys	Ala	Pro
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Gly	Glu	Gln	Thr	Val	Pro	Ala	Leu	Asn	Leu	Gln	Asn	Ala	Phe	Arg	Ile
610				615				620							
Ile	Lys	Glu	Val	Gln	Lys	Arg	Tyr	Lys	Thr	Arg	Glu	Ala	Glu	Glu	Lys
625	630				635				640						
Glu	Lys	Glu	Gly	Ile	Val	Lys	Gln	Asp	Ser	Leu	Val	Ile	Asn	Leu	Asn
645				650				655							
Arg	Ser	Asn	Pro	Lys	Leu	Lys	Asp	Leu	Tyr	Ile	Arg	Pro	Asn	Ile	Ala
660				665				670							
Gln	Lys	Arg	Met	Gln	Gly	Ser	Leu	Glu	Ala	His	Val	Asn	Gly	Phe	Arg
675				680				685							
Phe	Thr	Ser	Val	Arg	Gly	Asp	Lys	Val	Asp	Ile	Leu	Tyr	Asn	Asn	Ile
690				695				700							
Lys	His	Ala	Leu	Phe	Gln	Pro	Cys	Asp	Gly	Glu	Met	Ile	Ile	Val	Leu
705	710				715				720						
His	Phe	His	Leu	Lys	Asn	Ala	Ile	Met	Phe	Gly	Lys	Lys	Arg	His	Thr
725				730				735							
Asp	Val	Gln	Phe	Tyr	Thr	Glu	Val	Gly	Glu	Ile	Thr	Thr	Asp	Leu	Gly
740				745				750							
Lys	His	Gln	His	Met	His	Asp	Arg	Asp	Asp	Leu	Tyr	Ala	Glu	Gln	Met
755				760				765							
Glu	Arg	Glu	Met	Arg	His	Lys	Leu	Lys	Thr	Ala	Phe	Lys	Asn	Phe	Ile
770				775				780							
Glu	Lys	Val	Glu	Ala	Leu	Thr	Lys	Glu	Glu	Leu	Glu	Phe	Glu	Val	Pro
785	790				795				800						
Phe	Arg	Asp	Leu	Gly	Phe	Asn	Gly	Ala	Pro	Tyr	Arg	Ser	Thr	Cys	Leu
805				810				815							
Leu	Gln	Pro	Thr	Ser	Ser	Ala	Leu	Val	Asn	Ala	Thr	Glu	Trp	Pro	Pro
820				825				830							
Phe	Val	Val	Thr	Leu	Asp	Glu	Val	Glu	Leu	Ile	His	Phe	Glu	Arg	Val
835				840				845							
Gln	Phe	His	Leu	Lys	Asn	Phe	Asp	Met	Val	Ile	Val	Tyr	Lys	Asp	Tyr
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Ser	Lys	Lys	Val	Thr	Met	Ile	Asn	Ala	Ile	Pro	Val	Ala	Ser	Leu	Asp
865	870				875				880						
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885				890				895							
Val	Gln	Ser	Leu	Asn	Trp	Thr	Lys	Ile	Met	Lys	Thr	Ile	Val	Asp	Asp
900				905				910							
Pro	Glu	Gly	Phe	Phe	Glu	Gln	Gly	Trp	Ser	Phe	Leu	Glu	Pro	Glu	
915				920				925							
Gly	Glu	Gly	Ser	Asp	Ala	Glu	Glu	Gly	Asp	Ser	Glu	Ser	Glu	Ile	Glu

930	935	940
Asp Glu Thr Phe Asn Pro Ser Glu Asp Asp Tyr Glu Glu Glu Glu Glu		
945	950	955
Asp Ser Asp Glu Asp Tyr Ser Ser Glu Ala Glu Glu Ser Asp Tyr Ser		960
	965	970
Lys Glu Ser Leu Gly Ser Glu Glu Glu Ser Gly Lys Asp Trp Asp Glu		975
	980	985
Leu Glu Glu Glu Ala Arg Lys Ala Asp Arg Glu Ser Arg Tyr Glu Glu		990
	995	1000
Glu Glu Glu Gln Ser Arg Ser Met Ser Arg Lys Arg Lys Ala Ser Val		1005
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His Ser Ser Gly Arg Gly Ser Asn Arg Gly Ser Arg His Ser Ser Ala		1020
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Pro Pro Lys Lys Lys Arg Lys		1040
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&lt;210&gt; 2959

&lt;211&gt; 3323

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2959

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960

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2160  
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2580

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<211> 868

<212> PRT

<213> Homo sapiens

<400> 2960

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Lys	Phe	Pro	Phe	Ser	Glu	Asn	Gln	Ile	Cys	Leu	Thr	Phe	Thr	Trp	Lys
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Lys	Asp	Ala	Ile	Ile	Ala	Lys	Leu	Ala	Asn	Gln	Ala	Ala	Asp	Tyr	Phe																	
			210	215						220																						
Gly	Asp	Ala	Phe	Lys	Gln	Cys	Gln	Tyr	Lys	Asp	Thr	Leu	Pro	Lys	Glu																	
			225	230			235								240																	
Val	Phe	Pro	Val	Leu	Ala	Ala	Lys	His	Cys	Ile	Met	Gln	Ala	Asn	Ala																	
			245				250						255																			
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			260	265						270																						
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			275	280						285																						
Ser	Arg	Tyr	Asp	Glu	Tyr	Val	Asn	Val	Lys	Asp	Phe	Ser	Asp	Lys	Ile																	
			290	295			300																									
Asn	Arg	Ala	Leu	Ala	Ala	Ala	Lys	Lys	Asp	Asn	Asp	Phe	Ile	Tyr	His																	
			305	310			315								320																	
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Ala	Tyr	Asn	Gln	Arg	Lys	Ala	Asp	Leu	Val	Asn	Arg	Ser	Ile	Ala	Gln																	
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			405				410			415																						
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Asp	Asn	Asp	Leu	Arg	Ala	Lys	Phe	Lys	Asp	Arg	Trp	Gln	Arg	Thr	Pro																	
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Ser	Asn	Asp	Leu	Tyr	Lys	Pro	Leu	Arg	Ala	Glu	Gly	Thr	Asn	Phe	Arg																	
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Thr	Val	Leu	Asp	Lys	Ala	Val	Gln	Ala	Asp	Gly	Gln	Val	Lys	Glu	Cys																	
			500				505			510																						
Tyr	Gln	Ser	His	Arg	Asp	Thr	Ile	Val	Leu	Leu	Cys	Lys	Pro	Glu	Pro																	
			515	520						525																						
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<210> 2961

<211> 434

<212> DNA

<213> Homo sapiens

<400> 2961

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300					
aagtgtctggg	attacaggca	tgagccaccg	tgcttggcca	gattttgttt	ggctatgcca
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 Pro Asp Glu Asp Leu Ser Xaa Arg Asn Lys Glu Pro Pro Ala Pro Ala  
 35 40 45  
 Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala  
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 420  
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<210> 2964  
 <211> 115  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2964

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 35 40 45  
 Gly Gly Pro Gly Arg Val Trp Gly Thr Ser Leu His Val Val Gly Leu  
 50 55 60  
 Leu Met Val His Glu Trp Val Val Val Lys Gly Ala Val Trp Ala Gly  
 65 70 75 80  
 Pro Leu Pro Gln Ala Trp Pro Pro Asp Thr Pro Phe Pro Ala Asp Val  
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 Pro Ala Gly  
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&lt;210&gt; 2965

&lt;211&gt; 3739

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2965

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 300  
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&lt;210&gt; 2966

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2966

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20					25					30				
Pro	Phe	Pro	Leu	Leu	Met	Asn	Arg	Gln	Arg	Val	Pro	Lys	Val	Leu
35					40					45				
Glu	Asn	Ala	Lys	Asn	Phe	Pro	Gln	Cys	Val	Leu	Glu	Ile	Ser	Asp
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Glu	Val	Leu	Glu	Trp	Tyr	Thr	Ala	Lys	Asp	Phe	Ile	Val	Gly	Lys
65					70					75				
Leu	Thr	Ile	Leu	Gly	Arg	Thr	Phe	Phe	Ile	Tyr	Asp	Cys	Asp	Pro
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Thr	Arg	Arg	Tyr	Lys	Glu	Lys	Phe	Gly	Ile	Thr	Asp	Leu	Pro	Arg
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Ile	Asp	Val	Ser	Lys	Arg	Glu	Pro	Pro	Val	Lys	Gln	Glu	Leu	Pro
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Pro	Tyr	Asn	Gly	Phe	Gly	Leu	Val	Glu	Asp	Ser	Ala	Gln	Asn	Cys
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145					150					155				
Asn	Asp	Asn	Lys	Val	Leu	Arg	Tyr	Leu	Ala	Val	Leu	Glu	Ser	Pro
165					170					175				
Pro	Glu	Asp	Lys	Asp	Arg	Arg	Phe	Val	Phe	Ser	Tyr	Phe	Leu	Ala
180					185					190				
Asp	Met	Ile	Ser	Ile	Phe	Glu	Pro	Pro	Val	Arg	Asn	Ser	Gly	Ile
195					200					205				
Gly	Gly	Lys	Tyr	Leu	Gly	Arg	Thr	Lys	Val	Val	Lys	Pro	Tyr	Ser
210					215					220				
Val	Asp	Asn	Pro	Val	Tyr	Tyr	Gly	Pro	Ser	Asp	Phe	Phe	Ile	Gly
225					230					235				
Val	Ile	Glu	Val	Phe	Gly	His	Arg	Phe	Ile	Ile	Leu	Asp	Thr	Asp
245					250					255				
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Ser	Gly	Tyr	Val	Asp	Arg	Asp	Met	Phe	Phe	Lys	Ile	Cys	Glu	Ser
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Asn	Val	Pro	Val	Asp	Asp	Ser	Leu	Val	Lys	Glu	Leu	Leu	Arg	Met
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Ser	His	Gly	Glu	Gly	Lys	Ile	Asn	Tyr	Tyr	Asn	Phe	Val	Arg	Ala
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<211> 1103
<212> DNA
<213> Homo sapiens
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<400> 2967

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&lt;210&gt; 2968

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2968

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Gly	Pro	Ser	Lys	Ser	Pro	Ser	Gly	Val	Arg	Cys	Cys	Gly	Ala	Ala
			20				25					30		
Trp	Glu	Asp	Lys	Asp	Glu	Phe	Leu	Asp	Val	Ile	Tyr	Trp	Phe	Arg
			35				40				45			
Ile	Ile	Ala	Val	Val	Leu	Gly	Val	Ile	Trp	Gly	Val	Leu	Pro	Leu
			50				55				60			
Gly	Phe	Leu	Gly	Ile	Ala	Gly	Phe	Cys	Leu	Ile	Asn	Ala	Gly	Val

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Tyr	Leu	Tyr	Phe	Ser	Asn	Tyr	Leu	Gln	Ile	Asp	Glu	Glu	Glu	Tyr	Gly
			85					90						95	
Gly	Thr	Trp	Glu	Leu	Thr	Lys	Glu	Gly	Phe	Met	Thr	Ser	Phe	Ala	Xaa
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Val	His	Gly	His	Leu	Asp	His	Leu	Leu	His	Cys	His	Pro	Leu		
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&lt;210&gt; 2969

&lt;211&gt; 667

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2969

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&lt;210&gt; 2970

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2970

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Arg	Asp	Ser	Lys	Leu	Thr	Arg	Leu	Leu	Gln	Asp	Ser	Leu	Gly	Gly	Asn
		20					25					30			
Ser	Gln	Thr	Ile	Met	Ile	Ala	Trp	Gly	Ser	Pro	Ser	Asn	Arg	Asp	Phe
	35				40					45					
Met	Glu	Thr	Leu	Asn	Thr	Leu	Lys	Tyr	Ala	Asn	Arg	Ala	Arg	Asn	Ile
	50				55			60							
Lys	Asn	Lys	Val	Val	Val	Asn	Gln	Asp	Lys	Thr	Ala	Ser	Lys	Ser	Met

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<210> 2971

<211> 6015

<212> DNA

<213> Homo sapiens

<400> 2971

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&lt;210&gt; 2972

&lt;211&gt; 632

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2972

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Ser Val Leu Leu Gly Arg Ser Ile Glu Ser Gly Glu Leu Ile Ala Ile
      20          25          30
Lys Lys Met Lys Arg Lys Phe Tyr Ser Trp Glu Glu Cys Met Asn Leu
      35          40          45
Arg Glu Val Lys Ser Leu Lys Lys Leu Asn His Ala Asn Val Val Lys
      50          55          60
Leu Lys Glu Val Ile Arg Glu Asn Asp His Leu Tyr Phe Ile Phe Glu
65          70          75          80
Tyr Met Lys Glu Asn Leu Tyr Gln Leu Ile Lys Glu Arg Asn Lys Leu
      85          90          95
Phe Pro Glu Ser Ala Ile Arg Asn Ile Met Tyr Gln Ile Leu Gln Gly
      100          105          110
Leu Ala Phe Ile His Lys His Gly Phe Phe His Arg Asp Leu Lys Pro
      115          120          125
Glu Asn Leu Leu Cys Met Gly Pro Glu Leu Val Lys Ile Ala Asp Phe
      130          135          140
Gly Leu Ala Arg Glu Ile Arg Ser Lys Pro Pro Tyr Thr Asp Tyr Val
145          150          155          160
Ser Thr Arg Trp Tyr Arg Ala Pro Glu Val Leu Leu Arg Ser Thr Asn
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Tyr Ser Ser Pro Ile Asp Val Trp Ala Val Gly Cys Ile Met Ala Glu
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Val Tyr Thr Leu Arg Pro Leu Phe Pro Gly Ala Ser Glu Ile Asp Thr
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Pro Glu Gly Tyr Gln Leu Ser Ser Ala Met Asn Phe Arg Trp Pro Gln
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Pro Pro Ala Gln Pro Pro Ala Lys Pro His Thr Arg Ile Ser Ser Arg
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Gln His Gln Ala Ser Gln Pro Pro Leu His Leu Thr Tyr Pro Tyr Lys
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Ala Glu Val Ser Arg Thr Asp His Pro Ser His Leu Gln Glu Asp Lys
      355          360          365
Pro Ser Pro Leu Leu Phe Pro Ser Leu His Asn Lys His Pro Gln Ser
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Lys Ile Thr Ala Gly Leu Glu His Lys Asn Gly Glu Ile Lys Pro Lys
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 Phe Glu Ser Val Leu Asp Leu Lys Pro Ser Glu Pro Val Gly Thr Gly  
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 580 585 590  
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&lt;210&gt; 2973

&lt;211&gt; 858

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2973

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<211> 117

<212> PRT

<213> Homo sapiens

<400> 2974

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<210> 2975

<211> 1425

<212> DNA

<213> Homo sapiens

<400> 2975

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&lt;210&gt; 2976

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2976

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			20					25					30		
Thr	Leu	Arg	Trp	Glu	Glu	Thr	Arg	Thr	Pro	Glu	Ser	Gln	Pro	Asp	Thr
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Pro	Pro	Gly	Thr	Pro	Leu	Val	Ser	Gln	Asp	Glu	Lys	Arg	Asp	Ala	Glu
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Leu	Pro	Lys	Lys	Arg	Met	Gly	Lys	Ser	Asn	Pro	Gly	Trp	Glu	Asn	Leu
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<210> 2977
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<212> DNA
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2212



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&lt;210&gt; 2978

&lt;211&gt; 369

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2978

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			20					25					30		
Asp	Pro	Asp	Gly	Ser	Trp	Ala	Gln	Ile	Ala	Glu	Lys	Arg	Ala	Val	Leu
		35					40					45			
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Cys	Asn	Val	Ser	Gly	Ala	Leu	Pro	Pro	Ala	Gly	Arg	His	Ala	Ala	Tyr
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Ser	Val	Gly	Trp	Glu	Met	Ala	Pro	Ala	Gly	Ala	Pro	Gly	Pro	Gly	Arg
			100					105					110		
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Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp Ala Gly Thr Tyr		
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Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly Thr Arg Leu Arg		
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Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val His Val Arg Glu		
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Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala Gly Gly Thr Val		
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Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile Ser Val Arg Gly		
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Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp Val Glu Arg Pro		
225	230	235
Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu Val Gly Gly Val		
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Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro Gly Gly Gly Pro		
260	265	270
Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg Leu Arg Leu His		
275	280	285
Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys Ala Pro Ser Ala		
290	295	300
Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala Gly Ser Ala Arg		
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Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala Leu Asp Thr Leu		
325	330	335
Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu Val Thr Gly Ala		
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Arg

&lt;210&gt; 2979

&lt;211&gt; 2191

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2979

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 <213> Homo sapiens

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 35 40 45  
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 50 55 60  
 Arg Pro Pro Thr Ala Val Leu Pro Arg Leu Val Glu Asn Leu Lys Ala  
 65 70 75 80  
 Arg Val Pro Val Pro Gly His Thr Glu Pro Leu Trp Ser Glu Gly Thr  
 85 90 95  
 Ala Pro Gly Gln Gly Leu Trp Ser His Ala Pro Ala Asp Gly Ser Leu  
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<210> 2982

<211> 107

<212> PRT

<213> Homo sapiens

<400> 2982

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			20					25					30		
His	Ser	Ser	Ser	Ser	Glu	Glu	Ser	Thr	Lys	Arg	Thr	Ser	His	Ser	Lys
		35					40					45			
Leu	Pro	Glu	Gln	Glu	Ala	Ala	Glu	Ala	Asp	Leu	Ser	Asn	Met	Glu	Arg
	50					55					60				
Val	Ser	Leu	Ser	Thr	Ala	Asp	Pro	Gln	Gly	Val	Thr	Tyr	Ala	Glu	Leu
65					70					75				80	
Ser	Thr	Ser	Ala	Leu	Ser	Glu	Ala	Ala	Ser	Asp	Thr	Thr	Gln	Glu	Pro
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Pro	Gly	Ser	His	Glu	Tyr	Ala	Ala	Leu	Lys	Val					
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<210> 2983

<211> 614

<212> DNA

<213> Homo sapiens

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50 55 60  
Arg Leu Val Tyr Val Glu Gly Asp Gln Leu Ser Leu Gln Ile Gln Asp  
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100 105 110  
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130 135 140  
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<211> 988

<212> PRT

<213> Homo sapiens

<400> 2986

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Leu	Ser	Leu	Ala	Ser	Glu	Asp	Glu	Glu	Glu	Tyr	Glu	Ser	Gly	Tyr	Ala				
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Glu	Glu	Gly	Ser	Glu	Ser	Glu	Gly	Ser	Glu	Ser	Ser	Gly	Arg
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Gly	Leu	Leu	Pro	Ala	Val	Lys	Val	Phe	Leu	Asp	Trp	Leu	Arg
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Pro	Asp	Leu	Ile	Ile	Val	Cys	Ala	Gln	Ser	Ser	Gln	Ser	Leu
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Cys	Glu	Leu	Pro	Asp	Leu	Pro	Ser	Ser	Leu	Leu	Leu	Pro	Glu
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Ile	Thr	Gly	Leu	Pro	Leu	Asp	Asn	Pro	Ser	Val	Leu	Ser	Gly
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Gln	Ala	Ala	Leu	Gln	Ala	Ala	Ala	His	Ala	Ser	Val	Asp	Ile
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980

985

&lt;210&gt; 2987

&lt;211&gt; 1016

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 2987

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&lt;210&gt; 2988

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2988

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20          25          30
Ala Ser Arg Val Ala Gly Thr Thr Gly Thr Arg His Asn Ala Arg Leu

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<212> DNA
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                   20                  25                  30  
 Trp Glu Glu Trp Gln Asp Leu Asp Asp Ala Gln Arg Thr Leu Tyr Arg  
           35                  40                  45  
 Asp Val Met Leu Glu Thr Tyr Ser Ser Leu Val Ser Leu Gly His Cys  
           50                  55                  60  
 Ile Thr Lys Pro Glu Met Ile Phe Lys Leu Glu Gln Gly Ala Glu Pro  
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 Trp Ile Val Glu Glu Thr Leu Asn Leu Arg Leu Ser Gly Gly Ser Lys  
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<210> 2991  
 <211> 980  
 <212> DNA  
 <213> Homo sapiens

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<210> 2992

<211> 64

<212> PRT

<213> Homo sapiens

<400> 2992

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Val	Leu	Cys	Ser	Gly	Leu	Leu	Leu	Gly	Gly	Leu	Gly	Ala	Ala	His	Phe
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<210> 2993

<211> 687

<212> DNA

<213> Homo sapiens

<400> 2993

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<213> Homo sapiens

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35 40 45  
Ile Gly Arg Gly Ser Phe Lys Thr Val Tyr Arg Gly Leu Asp Thr Asp  
50 55 60  
Thr Thr Val Glu Val Ala Trp Cys Glu Leu Gln Thr Arg Lys Leu Ser  
65 70 75 80  
Arg Ala Glu Arg Gln Arg Phe Ser Glu Glu Val Glu Met Leu Lys Gly  
85 90 95  
Leu Gln His Pro Asn Ile Val Arg Phe Tyr Asp Ser Trp Lys Ser Val  
100 105 110  
Leu Arg Gly Gln Val Cys Ile Val Leu Val Thr Glu Leu Met Thr Ser  
115 120 125  
Gly Thr Leu Lys Thr Tyr Leu Arg Arg Phe Arg Glu Met Lys Pro Arg  
130 135 140  
Val Leu Gln Arg Trp Ser Arg Gln Ile Leu Arg Gly Leu His Phe Leu  
145 150 155 160  
His Ser Arg Val Pro Pro Ile Leu His Arg Asp Leu Lys Cys Asp Asn  
165 170 175  
Val Phe Ile Thr Gly Pro Thr Gly Ser Val Lys Ile Gly Asp Leu Gly  
180 185 190  
Leu Ala Thr Leu Lys Arg Ala Ser Phe Ala Lys Ser Val Ile Gly Thr  
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Pro Glu Phe Met Ala Pro Glu Met Tyr Glu Glu Lys Tyr Asp Glu Ala  
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<210> 2995  
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<212> DNA  
<213> Homo sapiens

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240



atgtgtcaag aagaccacag ttagcaccag gaaaggaact ttacttttagc ttctgattac  
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420  
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480  
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600  
gattacaggt gtgagccact gcaccagcc tggcagtcga ttttaagcct cctatttccc  
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720  
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780  
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960  
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1020  
ccacgaaaac tcccccaagg atgaagcctt ctccttccag gtttccagag aagcctccgt  
1080  
tccaggctcg gaagaagttg taccacactc ccagacggat aaatcccata aacatcatct  
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1200  
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1260  
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1320  
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1380  
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1620  
cgccccggcg ctaagggggc aaaccgcccc gcccgagggtg tcccaggggc gggccccgga  
1680  
gtacctggag gatatagacc tgaaaacact ggagaaggaa ccaaggactt tcaaagcaaa  
1740  
ggagctatgg gaaaaaaatg gagctgtgat tatggccgtg cggaggccag gctgtttcct  
1800  
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1860

ccccctctat gcagtggta  
1879

<210> 2996

<211> 101

<212> PRT

<213> Homo sapiens

<400> 2996

His	Gln	Glu	Arg	Asn	Phe	Thr	Leu	Ala	Ser	Asp	Tyr	Phe	Phe	Ile	Phe
1				5					10					15	
Ile	Phe	Thr	Leu	Leu	Leu	Leu	Leu	Phe	Leu	Arg	Trp	Ser	Leu	Thr	
		20					25					30			
Leu	Xaa	Thr	Gln	Ala	Gly	Ile	Gln	Trp	Cys	Asp	Leu	Ser	Ser	Leu	Gln
		35				40					45				
Pro	Pro	Pro	Pro	Arg	Phe	Lys	Arg	Phe	Ser	Cys	Leu	Ser	Leu	Leu	Ser
	50					55					60				
Ser	Trp	Asp	Ser	Asp	Arg	Cys	Leu	Pro	Pro	His	Pro	Gly	Asp	Phe	Cys
65				70					75					80	
Ile	Phe	Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Cys	Ser	Gly	Trp	Ser	Arg
				85					90					95	
Thr	Pro	Asp	Leu	Lys											
				100											

<210> 2997

<211> 800

<212> DNA

<213> Homo sapiens

<400> 2997

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120  
acaaccatac ctgcttcctc tgagataaca agaattgaga tggagtcaac atccaccctg  
180  
acccccacac caagggagac cagcacctcc caggagatcc actcagccac aaagccaagc  
240  
actgttcctt acaaggcact cactagtgcc acgattgagg actccatgac acaagtcattg  
300  
tcctctagca gaggacctag ccctgatcag tccacaatgt cacaagacat atccactgaa  
360  
gtgatcacca ggctctctac ctcccccatc aagacagaat ctacagaaat gaccattacc  
420  
acccaaacag ggtctcctgg ggctacatca aggggtaccc ttaccttgga cacttcaaca  
480  
acttttatgt cagggaccca ctcaactgca tctcaaagat tttcacactc acagatgacc  
540  
gctcttatga gtagaactcc tggagatgtg ccatggctaa cccatccctc tggggaagag  
600  
ccgcctctg cctctttctc actggcttca cctgtcttga cctcattttt ttcgtttttt  
660  
gccattccc aaaaacctcc accttttttg gttcctgggc aaactttttc cctagggctg  
720

gggaaaccca aaatgtgggg ccaaccaga actgaaacat tcccccaat ggacaacctt  
 780  
 tttgaaaagg gcccttttgc  
 800

<210> 2998

<211> 266

<212> PRT

<213> Homo sapiens

<400> 2998

Thr	Gln	Met	Gly	Thr	Ile	Ser	Ala	Arg	Gln	Glu	Phe	Tyr	Ser	Ser	Tyr
1				5					10					15	
Pro	Gly	Leu	Pro	Glu	Pro	Ser	Lys	Val	Thr	Ser	Pro	Val	Val	Thr	Ser
			20					25					30		
Ser	Thr	Ile	Lys	Asp	Ile	Val	Ser	Thr	Thr	Ile	Pro	Ala	Ser	Ser	Glu
		35					40					45			
Ile	Thr	Arg	Ile	Glu	Met	Glu	Ser	Thr	Ser	Thr	Leu	Thr	Pro	Thr	Pro
	50					55					60				
Arg	Glu	Thr	Ser	Thr	Ser	Gln	Glu	Ile	His	Ser	Ala	Thr	Lys	Pro	Ser
65					70					75				80	
Thr	Val	Pro	Tyr	Lys	Ala	Leu	Thr	Ser	Ala	Thr	Ile	Glu	Asp	Ser	Met
				85					90					95	
Thr	Gln	Val	Met	Ser	Ser	Ser	Arg	Gly	Pro	Ser	Pro	Asp	Gln	Ser	Thr
			100					105					110		
Met	Ser	Gln	Asp	Ile	Ser	Thr	Glu	Val	Ile	Thr	Arg	Leu	Ser	Thr	Ser
		115					120					125			
Pro	Ile	Lys	Thr	Glu	Ser	Thr	Glu	Met	Thr	Ile	Thr	Thr	Gln	Thr	Gly
	130					135						140			
Ser	Pro	Gly	Ala	Thr	Ser	Arg	Gly	Thr	Leu	Thr	Leu	Asp	Thr	Ser	Thr
145					150					155				160	
Thr	Phe	Met	Ser	Gly	Thr	His	Ser	Thr	Ala	Ser	Gln	Arg	Phe	Ser	His
				165					170					175	
Ser	Gln	Met	Thr	Ala	Leu	Met	Ser	Arg	Thr	Pro	Gly	Asp	Val	Pro	Trp
			180					185					190		
Leu	Thr	His	Pro	Ser	Gly	Glu	Glu	Pro	Ala	Ser	Ala	Ser	Phe	Ser	Leu
		195				200					205				
Ala	Ser	Pro	Val	Leu	Thr	Ser	Phe	Phe	Ser	Phe	Phe	Ala	His	Ser	Gln
	210					215					220				
Lys	Pro	Pro	Pro	Phe	Leu	Val	Pro	Gly	Gln	Thr	Phe	Ser	Leu	Gly	Leu
225					230					235				240	
Gly	Lys	Pro	Lys	Met	Trp	Gly	Gln	Pro	Arg	Thr	Glu	Thr	Phe	Pro	Pro
				245					250					255	
Met	Asp	Asn	Leu	Phe	Glu	Lys	Gly	Pro	Phe						
			260					265							

<210> 2999

<211> 550

<212> DNA

<213> Homo sapiens

<400> 2999

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acccccttgc cactttggcc ccctccaggc tttgggcact gacaagcatg ggaaggaggc  
 120  
 tgaggggtgc actgaggaca gcccagtgc ggctgcagg cacccttaa catgaacagc  
 180  
 ctggtcacca tgaacagcag caggaggcag acaggctcct ggggtgaaag aagctgggtcc  
 240  
 acagtgaaga ccacactcca agccaggga agcctgaagc ctgggggatg ggtcgccagt  
 300  
 ccagaaacc gcaagggcaa cttgtggtgc tttccctgg gccacccat ggccgccat  
 360  
 ggacgaattg gcatgcactt tctccctct gagggccata aaagcccctg ggctcagcca  
 420  
 gagctgagcg gatatcagga cgacaagctg cacagaggta ctaccatac caaggcctcc  
 480  
 tctctgctga gagctgcaca tacaatggaa tgacctgcct gtagagagag cttccactc  
 540  
 cagggctctcc  
 550

&lt;210&gt; 3000

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3000

Met	Cys	Ser	Ser	Gln	Gln	Arg	Gly	Gly	Leu	Gly	Met	Gly	Ser	Thr	Ser
1				5					10					15	
Val	Gln	Leu	Val	Val	Leu	Ile	Ser	Ala	Gln	Leu	Trp	Leu	Ser	Pro	Gly
			20					25					30		
Ala	Phe	Met	Gly	Leu	Arg	Gly	Glu	Lys	Val	His	Ala	Asn	Ser	Ser	Met
		35				40					45				
Gly	Gly	His	Gly	Trp	Ala	Gln	Gly	Lys	Ala	Pro	Gln	Val	Ala	Leu	Ala
	50					55				60					
Val	Ser	Gly	Thr	Gly	Asp	Pro	Ser	Pro	Arg	Leu	Gln	Ala	Phe	Pro	Gly
65					70				75					80	
Leu	Glu	Val	Gly	Leu	His	Cys	Gly	Pro	Ala	Ser	Phe	His	Pro	Gly	Ala
			85					90					95		
Cys	Leu	Pro	Pro	Ala	Ala	Val	His	Gly	Asp	Gln	Ala	Val	His	Val	Lys
		100						105				110			
Gly	Cys	Leu	Gln	Ala	Ser	Thr	Gly	Leu	Ser	Ser	Val	His	Pro	Ser	Ala
		115				120					125				
Ser	Phe	Pro	Cys	Leu	Ser	Val	Pro	Lys	Ala	Trp	Arg	Gly	Pro	Lys	Trp
	130					135				140					
Gln	Gly	Gly	Trp	His	Val	Ser	Thr	Thr	Pro	Ser	Met	Cys	Thr	Leu	Ser
145					150				155					160	
Trp	Ala	Val	Thr	Ala	Pro	Gly									
				165											

&lt;210&gt; 3001

&lt;211&gt; 1092

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3001

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 aatagctctg cctggctgag ttgaaaggt cactgttctg tttcagcgtt gagatgcctt  
 120  
 gaagtacaga ggttgagccc ctatgtatgc ctgggggagt cccagaaagt ggaatcccaa  
 180  
 ccttgctcag ctcaccagtg tttcttctat aaccagaca ttgcaaagac agcagtaccc  
 240  
 actgaggcat ccagcccagc tcaggccctg ccaccnca gtaccaaagc atcattgtca  
 300  
 ggcaagggat acagaacaca gtgctctcac cagactgcag cttgggggac acccagcacg  
 360  
 gagagaagct gaggcggaac tgcactatct accggccctg gttctcccc tacagctact  
 420  
 tcgtgtgtgc agacaaagag agccagctgg aggcctatga cttcccagag gtgcagcagg  
 480  
 atgagggcaa gtgggacaac tgcctttctg aggacatggc tgagaacatc tgttcgtcct  
 540  
 cttctcccc agagaacact tgccctcgag aagccaccaa gaaatccagg catggcctgg  
 600  
 actccatcac atcccaggac atcctaattg cttccagggtg gcaccagca cagcagaatg  
 660  
 gctacaagtg cgtggcctgc tgccgcatgt accccaccct ggacttcctc aagagccaca  
 720  
 tcaagagggg cttcaggag ggcttcagct gcaaggtgta ctaccgcaag ctcaaagccc  
 780  
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 840  
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 900  
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 960  
 cctgtgtcc tccccagaa cgggctctca tcaccttgg ctaatggttg cctagcaaca  
 1020  
 ccaggcacac accctccctt ttctctcttt taaaaataaa gacaatactt gaagtttggg  
 1080  
 aaaatcaaaa aa  
 1092

&lt;210&gt; 3002

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3002

Met Ala Pro Phe Arg Ile Pro Gln Asp Val Ile His Asn Ser Ser Ala  
 1 5 10 15  
 Trp Leu Ser Leu Lys Gly His Cys Ser Val Ser Ala Leu Arg Cys Leu  
 20 25 30  
 Glu Val Gln Arg Leu Ser Pro Tyr Val Cys Leu Gly Glu Ser Gln Lys  
 35 40 45  
 Val Glu Ser Gln Pro Cys Ser Ala His Gln Cys Phe Phe Tyr Asn Pro  
 50 55 60  
 Asp Ile Ala Lys Thr Ala Val Pro Thr Glu Ala Ser Ser Pro Ala Gln

```
<210> 3003
<211> 474
<212> DNA
<213> Homo sapiens
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<400> 3003
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tatggaagct ctgcggtcat acaaccagga gcactcccag agcttcacgt ttgatgatgc
120
ccaacaggag gaccggaaga gactggcgga gctgctggtc tccgtcctgg aacagggtt
180
gccaccctcc caccgtgtca tctgggtgca gagtgtccga atcctgtccc gggaccgcaa
240
ctgcctggac ccgttcacca gccgccagag cctgcaggca ctagcctgct atgctgacat
300
ctctgtctct gaggggtccg tcccagagtc cgcagacatg gatgttgtac tggagtcctt
360
caagtgcctg tgcaacctcg tgctcagcag ccctgtggca cagatgctgg cagcagaggc
420
ccgcctagtg gtgaagctca cagagcgtgt ggggctgtac cgtgagagga gctc
474

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<210> 3004
<211> 155
<212> PRT
<213> Homo sapiens
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<400> 3004
Met Glu Pro Arg Ala Val Ala Glu Ala Val Glu Thr Gly Glu Glu Asp
 1                    5                    10                    15
Val Ile Met Glu Ala Leu Arg Ser Tyr Asn Gln Glu His Ser Gln Ser
 20                    25                    30
Phe Thr Phe Asp Asp Ala Gln Gln Glu Asp Arg Lys Arg Leu Ala Glu
 35                    40                    45
Leu Leu Val Ser Val Leu Glu Gln Gly Leu Pro Pro Ser His Arg Val
 50                    55                    60
Ile Trp Leu Gln Ser Val Arg Ile Leu Ser Arg Asp Arg Asn Cys Leu
 65                    70                    75                    80
Asp Pro Phe Thr Ser Arg Gln Ser Leu Gln Ala Leu Ala Cys Tyr Ala
 85                    90                    95
Asp Ile Ser Val Ser Glu Gly Ser Val Pro Glu Ser Ala Asp Met Asp
100                    105                    110
Val Val Leu Glu Ser Leu Lys Cys Leu Cys Asn Leu Val Leu Ser Ser
115                    120                    125
Pro Val Ala Gln Met Leu Ala Ala Glu Ala Arg Leu Val Val Lys Leu

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130                      135                      140  
 Thr Glu Arg Val Gly Leu Tyr Arg Glu Arg Ser  
 145                      150                      155

<210> 3005

<211> 799

<212> DNA

<213> Homo sapiens

<400> 3005

gtgcacagcg tggtaacca cacgccctcc cagctcctca aggaggtcat cctggtggac  
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 120  
 ccaggcctcg tgaagattgt ccgcaacagc cggcgggaag gactgatccg cgcgcggctg  
 180  
 cagggctgga aggcggccac cgccccagtc gtcggcttct ttgatgcca cgtcgagttc  
 240  
 aacacgggct gggccgagcc cgcactgtcg cggatccgag aggaccggcg tcgcatcgtg  
 300  
 ctgccagcca tcgacaacat caagtacagc acgtttgagg tgcagcagta tgcgaacgcc  
 360  
 gcccatggct acaactgggg cctctggtgc atgtacatca tcccccgca ggactggctg  
 420  
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 480  
 gtggaccgcg agtacttcgg agacattggg ctgctggacc ccggcatgga ggtgtatggc  
 540  
 ggcgagaacg tagaactggg catgaggggtg tggcagtgtg gcggcagcat ggaggtgctg  
 600  
 ccctgctccc gcgtggccca catcgagcgc accaggaagc cctacaacaa cgacattgac  
 660  
 tactacgcca agcgcaacgc cctgcgcacc gccgaggtgt ggatggatga cttcaagtc  
 720  
 caggtgtaca tggcctggaa catccccatg tcgaaccagc ggggtggactt cggggacgtg  
 780  
 tctgagaggc tggccctgc  
 799

<210> 3006

<211> 266

<212> PRT

<213> Homo sapiens

<400> 3006

Val His Ser Val Val Asn His Thr Pro Ser Gln Leu Leu Lys Glu Val  
 1                      5                      10                      15  
 Ile Leu Val Asp Asp Asn Ser Asp Asn Val Glu Leu Lys Phe Asn Leu  
 20                      25                      30  
 Asp Gln Tyr Val Asn Lys Arg Tyr Pro Gly Leu Val Lys Ile Val Arg  
 35                      40                      45  
 Asn Ser Arg Arg Glu Gly Leu Ile Arg Ala Arg Leu Gln Gly Trp Lys  
 50                      55                      60  
 Ala Ala Thr Ala Pro Val Val Gly Phe Phe Asp Ala His Val Glu Phe

65					70					75				80	
Asn	Thr	Gly	Trp	Ala	Glu	Pro	Ala	Leu	Ser	Arg	Ile	Arg	Glu	Asp	Arg
				85					90					95	
Arg	Arg	Ile	Val	Leu	Pro	Ala	Ile	Asp	Asn	Ile	Lys	Tyr	Ser	Thr	Phe
			100					105					110		
Glu	Val	Gln	Gln	Tyr	Ala	Asn	Ala	Ala	His	Gly	Tyr	Asn	Trp	Gly	Leu
		115					120					125			
Trp	Cys	Met	Tyr	Ile	Ile	Pro	Pro	Gln	Asp	Trp	Leu	Asp	Arg	Gly	Asp
	130					135					140				
Glu	Ser	Ala	Pro	Ile	Arg	Thr	Pro	Ala	Met	Ile	Gly	Cys	Ser	Phe	Val
145					150					155					160
Val	Asp	Arg	Glu	Tyr	Phe	Gly	Asp	Ile	Gly	Leu	Leu	Asp	Pro	Gly	Met
				165				170						175	
Glu	Val	Tyr	Gly	Gly	Glu	Asn	Val	Glu	Leu	Gly	Met	Arg	Val	Trp	Gln
			180					185					190		
Cys	Gly	Gly	Ser	Met	Glu	Val	Leu	Pro	Cys	Ser	Arg	Val	Ala	His	Ile
	195						200					205			
Glu	Arg	Thr	Arg	Lys	Pro	Tyr	Asn	Asn	Asp	Ile	Asp	Tyr	Tyr	Ala	Lys
	210					215					220				
Arg	Asn	Ala	Leu	Arg	Thr	Ala	Glu	Val	Trp	Met	Asp	Asp	Phe	Lys	Ser
225					230					235					240
His	Val	Tyr	Met	Ala	Trp	Asn	Ile	Pro	Met	Ser	Asn	Pro	Gly	Val	Asp
				245					250					255	
Phe	Gly	Asp	Val	Ser	Glu	Arg	Leu	Ala	Leu						
			260					265							

&lt;210&gt; 3007

&lt;211&gt; 536

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3007

cttaagagag gttgcaatgt gaatgataga gatggattga cagatatgac tcttttacat  
 60  
 tatacctgca aatctggagc tcatggtatt ggtgatgtgg aaacagctgt aaaatttgca  
 120  
 actcagctta ttgacctggg agcagacatt agtttgcgga gtcgctggac aaacatgaat  
 180  
 gctttgcatt atgctgctta ttttgatgtc cctgaactta taagagtgtat ttgaaaaca  
 240  
 tcgaaaccaa aagatgtgga tgccccttgc agtgatttta attttggaac agctttgcat  
 300  
 attgcagcat acaacttgtg tgcaggtgct gtgaagtgcc tcttgaggca gggagcaaat  
 360  
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 420  
 atgccgtag agatggctga cgccgcagcc actgctaagg aaatcaagca gatgcttcta  
 480  
 gatgcggtgc ctctgtcatg taacatctca aaggccatgc tcccccttc acgcgt  
 536

&lt;210&gt; 3008

&lt;211&gt; 163

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3008

```

Met Thr Leu Leu His Tyr Thr Cys Lys Ser Gly Ala His Gly Ile Gly
 1           5           10           15
Asp Val Glu Thr Ala Val Lys Phe Ala Thr Gln Leu Ile Asp Leu Gly
      20           25           30
Ala Asp Ile Ser Leu Arg Ser Arg Trp Thr Asn Met Asn Ala Leu His
      35           40           45
Tyr Ala Ala Tyr Phe Asp Val Pro Glu Leu Ile Arg Val Ile Leu Lys
      50           55           60
Thr Ser Lys Pro Lys Asp Val Asp Ala Pro Cys Ser Asp Phe Asn Phe
      65           70           75           80
Gly Thr Ala Leu His Ile Ala Ala Tyr Asn Leu Cys Ala Gly Ala Val
      85           90           95
Lys Cys Leu Leu Glu Gln Gly Ala Asn Pro Ala Phe Arg Asn Asp Lys
      100          105          110
Gly Gln Ile Pro Ala Asp Val Val Pro Asp Pro Val Asp Met Pro Leu
      115          120          125
Glu Met Ala Asp Ala Ala Ala Thr Ala Lys Glu Ile Lys Gln Met Leu
      130          135          140
Leu Asp Ala Val Pro Leu Ser Cys Asn Ile Ser Lys Ala Met Leu Pro
      145          150          155          160
Pro Ser Arg

```

&lt;210&gt; 3009

&lt;211&gt; 1335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3009

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nnacgcgtca gtctggaaag ggcacttata agagctacca gctgccctgt tggcttcgct
60
ggtcgggatcg tcctcctggc cccgccaaac aggcggggggg agcggccccc actgtggggc
120
catggcagta gtctcctcgt tctccgcgcg cgctagccta gctgagtcgc cggcttctgc
180
gctagggggt cccaccgcct ccgcaggcta aggagccgct gccaccaacg agctgtgagg
240
gttactatgc tcctcttttg ccgcgcgtct ctctcttgc ccgcgcaggc acccctctgg
300
ctgctcagtc ctgcctcagt gtcaaaccag aagagaagta aaattcaaca aaaatttatg
360
tgtggagttc cttcttaaaa gaagaaaaaa gtgattattt agactatgga tcggagcaaa
420
cggaattcaa ttgcaggatt tcctccacgt gtggagcgtc ttgaagagtt tgaaggaggt
480
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&lt;210&gt; 3010

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3010

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&lt;210&gt; 3011

&lt;211&gt; 3253

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3011

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<211> 870

<212> PRT

<213> Homo sapiens

<400> 3012

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Leu	Glu	Gln	Asp	Thr	Gln	Gly	Leu	Asp	Gly	Trp	Trp	Leu	Cys	Ser	Leu
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His	Gly	Arg	Gln	Gly	Ile	Val	Pro	Gly	Asn	Arg	Leu	Lys	Ile	Leu	Val
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Gly	Met	Tyr	Asp	Lys	Lys	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Pro	Pro	Ala
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Ser	Gln	Tyr	Thr	Pro	Met	Leu	Pro	Asn	Thr	Tyr	Gln	Pro	Gln	Pro	Asp
			100					105					110		
Ser	Val	Tyr	Leu	Val	Pro	Thr	Pro	Ser	Lys	Ala	Gln	Gln	Gly	Leu	Tyr
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Pro Lys Phe Thr Ser Gln	Asp Ser Pro Asp Gly Gln	Tyr Glu Asn Ser
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Glu Gly Gly Trp Met Glu	Asp Tyr Val His Leu	Gln Gly Lys
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Glu Glu Phe Glu Lys Thr	Gln Lys Glu Leu Leu Glu	Lys Gly Asn Ile
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Thr Arg Gln Gly Lys Ser	Gln Leu Glu Leu Gln Gln	Leu Lys Gln Phe
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Gly Pro Ser Asp Arg Gln	Leu Leu Phe Tyr Leu Glu	Gln Cys Glu
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Val Ala Thr Asn Gln Pro	Pro Lys Ile Phe Val Ala	His Ser Lys Phe
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805	810	815
Asn Leu Leu Cys Asp Leu	Leu Arg Gly Ile Val Ala	Thr Thr Lys Ala
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Ala Ala Leu Gln Tyr Pro	Ser Pro Ser Ala Ala Gln	Asp Met Val Glu
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&lt;210&gt; 3013

&lt;211&gt; 248

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3013

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 Val Pro Gly Gly Met Val His Pro Ile Phe Leu Glu Pro Val Thr Val



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<210> 3018

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3018

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Thr	Thr	Pro	Thr	Pro	Thr	Leu	Ala	Cys	Pro	Ser	Pro	Gln	Cys	Ala	Phe
		20						25					30		
Gln	Arg	Trp	Ile	Thr	Ile	Gln	His	Arg	Trp	Ser	Ser	Ala	Leu	His	Cys
		35					40					45			
Gln	Gly	Leu	Thr	Pro	Thr	Pro	Gly	Ala	Leu	Pro	Asn	Tyr	Leu	Lys	Val
	50					55					60				
Lys	Ala	Asn	Arg	Ala	Ile	Pro	Gln	Ala	Val	Thr	Ser	Thr	Arg	Leu	Gly
65					70				75					80	
Thr	Thr	Lys	Pro	Pro	Cys	Thr	Ile	Thr	Pro	Pro	Cys	Arg	Ala	Val	Arg
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<210> 3019

<211> 882

<212> DNA

<213> Homo sapiens

<400> 3019

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 120  
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 240  
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 300  
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gcacagccgc ctgcccagcc gccacgctct gcagaactca gattgcacag agctagactc  
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 720  
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 780  
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 882

&lt;210&gt; 3020

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3020

Gln	Gly	Thr	His	Glu	Leu	Pro	Gly	Trp	Pro	Gly	Pro	Cys	Cys	Gly	Thr
1				5				10						15	
Gly	Pro	Ala	Pro	Val	Leu	Leu	Ser	Ala	Arg	Pro	Gln	Gly	Pro	Ala	Arg
			20					25					30		
Asp	Pro	Ala	Arg	Pro	Arg	Phe	Leu	Ala	Cys	His	His	Arg	Gln	Thr	Cys
		35					40					45			
Gln	Pro	Leu	Pro	Ala	Gly	Leu	Pro	Gly	Arg						
		50				55									

&lt;210&gt; 3021

&lt;211&gt; 1008

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3021

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 120  
 gggcatgtgg gtgccttggg gtagggtaaa ggttccatct tgatcgcggt ggtgtttccc  
 180  
 aagtgtatac actcaccaaa actatactta gaactcaaaa ctgcgcaaat atatacttaa  
 240  
 aatggatgca gttgggttat tataaattat acctcaataa agttgattaa aaacatcaat  
 300  
 tcctcagaaa attcttttct gaccactccc ctctcagacg aggtcggggc tcctgggtatg  
 360  
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 420  
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 480

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 540  
 gcccatcttc tagaggcgga aaccgaagcg ccagtgaggga aaggcgaccc gccggggatg  
 600  
 cgggggtgctc aacgcgctgc cacctggggc ccaacgcgtt gacctcgcgg tcaggttgct  
 660  
 tccgcggact acggttctgg ctgctagct ctggaaggga gcaccgggag ggaatggtgg  
 720  
 caactcccaa ggaggggacc cagggatccg agaaaggaag acttggggta ggtggggttg  
 780  
 gattttgact ggagagaaga aagggtcagg agtgcagggc gggtagctgg ggagctgcgt  
 840  
 ggactcgcg cagacgggaag caggcgctg ctggcggtga cctggggccg gagaggaacg  
 900  
 ctgggtcccc tccttgggag ttgccaccat tccctcccgg tgctcccttc cagagctagc  
 960  
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 1008

<210> 3022

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3022

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Gly	Leu	Phe	Leu	Ser	Ser	Arg	Leu	Glu	Cys	Ser	Gly	Ala	Ile	Met	Asp
			20					25					30		
His	Cys	Ser	Leu	Asp	Leu	Pro	Gly	Ser	Ser	Asp	Pro	Pro	Gly	Ser	Pro
		35					40					45			
Pro	Val	Ala	Gly	Thr	Thr	Gly	Ala	Leu	Pro	His	Arg	Lys	Ala	His	Phe
	50					55					60				
Leu	Glu	Ala	Glu	Thr	Glu	Ala	Pro	Ser	Gly	Lys	Gly	Asp	Pro	Pro	Gly
65					70					75				80	
Met	Arg	Gly	Ala	Gln	Arg	Ala	Ala	Thr	Trp	Gly	Pro	Thr	Arg		
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<210> 3023

<211> 1834

<212> DNA

<213> Homo sapiens

<400> 3023

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 120  
 tcagattttt ccctccagtt ggtttaattt ctatttccta aaacattaaa ataataatgg  
 180  
 aatgattgaa ataataaaca tttttcttat tcaagatttc gtcattggcta ttgtaaagga  
 240  
 aaccctagga aaatggtgaa aacttgggca gaaaaagaaa tgaggaactt aatcaggcta  
 300

aacacagcag agataccatg tccagaacca ataatgctaa gaagtcacgt tcttgtcatg  
360  
agtttcatcg gtaaagatga catgcctgca ccactcttga aaaatgtcca gttatcagaa  
420  
tccaaggctc gggagttgta cctgcaggctc attcagtaca tgagaagaat gtatcaggat  
480  
gccagacttg tccatgcaga tctcagtga ttttaacatgc tgtaccacgg tggaggcgtg  
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600  
agaaaggatt gcgccaacgt caatgatttc tttatgaggg acagtgttgc tgtcatgact  
660  
gtgcggggagc tctttgaatt tgtcacagat ccattccatta cacatgagaa catggatgct  
720  
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900  
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1440  
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1680  
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1800  
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1834

&lt;210&gt; 3024

&lt;211&gt; 347

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3024

```

Asn Asn Lys His Phe Ser Tyr Ser Arg Phe Arg His Gly Tyr Cys Lys
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Gly Asn Pro Arg Lys Met Val Lys Thr Trp Ala Glu Lys Glu Met Arg
      20          25          30
Asn Leu Ile Arg Leu Asn Thr Ala Glu Ile Pro Cys Pro Glu Pro Ile
      35          40          45
Met Leu Arg Ser His Val Leu Val Met Ser Phe Ile Gly Lys Asp Asp
      50          55          60
Met Pro Ala Pro Leu Leu Lys Asn Val Gln Leu Ser Glu Ser Lys Ala
      65          70          75          80
Arg Glu Leu Tyr Leu Gln Val Ile Gln Tyr Met Arg Arg Met Tyr Gln
      85          90          95
Asp Ala Arg Leu Val His Ala Asp Leu Ser Glu Phe Asn Met Leu Tyr
      100          105          110
His Gly Gly Gly Val Tyr Ile Ile Asp Val Ser Gln Ser Val Glu His
      115          120          125
Asp His Pro His Ala Leu Glu Phe Leu Arg Lys Asp Cys Ala Asn Val
      130          135          140
Asn Asp Phe Phe Met Arg His Ser Val Ala Val Met Thr Val Arg Glu
      145          150          155          160
Leu Phe Glu Phe Val Thr Asp Pro Ser Ile Thr His Glu Asn Met Asp
      165          170          175
Ala Tyr Leu Ser Lys Ala Met Glu Ile Ala Ser Gln Arg Thr Lys Glu
      180          185          190
Glu Arg Ser Ser Gln Asp His Val Asp Glu Glu Val Phe Lys Arg Ala
      195          200          205
Tyr Ile Pro Arg Thr Leu Asn Glu Val Lys Asn Tyr Glu Arg Asp Met
      210          215          220
Asp Ile Ile Met Lys Leu Lys Glu Glu Asp Met Ala Met Asn Ala Gln
      225          230          235          240
Gln Asp Asn Ile Leu Pro Asp Cys Tyr Arg Ile Glu Glu Arg Phe Val
      245          250          255
Arg Ser Ser Glu Gly Pro Cys Thr Leu Glu Asn Gln Val Glu Glu Arg
      260          265          270
Thr Cys Ser Asp Ser Glu Asp Ile Gly Ser Ser Glu Cys Ser Asp Thr
      275          280          285
Asp Ser Glu Glu Gln Gly Asp His Ala Arg Pro Lys Lys His Thr Thr
      290          295          300
Asp Pro Asp Ile Asp Lys Lys Glu Arg Lys Lys Met Val Lys Glu Ala
      305          310          315          320
Gln Arg Glu Lys Arg Lys Asn Lys Ile Pro Lys His Val Lys Lys Arg
      325          330          335
Lys Glu Lys Thr Ala Lys Thr Lys Lys Gly Lys
      340          345

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&lt;210&gt; 3025

&lt;211&gt; 1370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3025

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60  
tcaagagaag ataaaaattg aaactgctaa tcatctagta ctactgctaa gccgctccaa  
120  
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180  
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240  
ctcagtgaag aggatattct tcgaaataag gccatcatgg agagtgtgag taaagggtgga  
300  
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360  
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420  
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480  
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540  
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600  
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960  
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1020  
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1260  
gtttgttcaa tataatgaac tagaaggaat gcaattttct gtagatgaat gaaccaaagt  
1320  
gtaaccatta aacaattgca tttaaaaaaa aaaaaaaaaa aaaaaaaaaa  
1370

&lt;210&gt; 3026

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3026

Met Glu Ser Leu Ser Lys Gly Gly Asn Ile Met Glu Gln Asn Phe Glu  
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 Pro Ile Arg Arg Gln Ser Leu Thr Pro Pro Pro Gln Asn Thr Ile Thr  
 20 25 30  
 Trp Glu Glu Tyr Ile Ser Ala Glu Asn Gly Lys Ala Pro His Leu Gly  
 35 40 45  
 Arg Glu Leu Val Cys Lys Glu Ser Lys Lys Thr Phe Lys Ala Thr Ile  
 50 55 60  
 Ala Met Ser Gln Glu Phe Pro Leu Gly Ile Glu Leu Leu Leu Asn Val  
 65 70 75 80  
 Leu Glu Val Val Ala Pro Phe Lys His Phe Asn Lys Leu Arg Glu Phe  
 85 90 95  
 Val Gln Met Lys Leu Pro Pro Gly Phe Pro Val Lys Leu Asp Ile Pro  
 100 105 110  
 Val Phe Pro Thr Ile Thr Ala Thr Val Thr Phe Gln Glu Phe Arg Tyr  
 115 120 125  
 Asp Glu Phe Asp Gly Ser Ile Phe Thr Ile Pro Asp Asp Tyr Lys Glu  
 130 135 140  
 Asp Pro Ser Arg Phe Pro Asp Leu  
 145 150

&lt;210&gt; 3027

&lt;211&gt; 1154

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3027

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 120  
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 180  
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 480  
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<210> 3028

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3028

Met	Asp	Tyr	Arg	Arg	Leu	Leu	Met	Ser	Arg	Val	Val	Pro	Gly	Gln	Phe
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Asp	Asp	Ala	Asp	Ser	Ser	Asp	Ser	Glu	Asn	Arg	Asp	Leu	Lys	Thr	Val
		20						25				30			
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			100					105					110		
Leu	Arg	Lys	Phe	Glu	Asn	Lys	Ile	Asn	Leu	Asp	Lys	Leu	Asn	Val	Thr
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Asp	Ser	Val	Ile	Asn	Lys	Val	Thr	Glu	Lys	Ser	Arg	Gln	Lys	Glu	Ala
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Val	Leu	Asp	Pro	Arg	Thr	Arg	Met	Ile	Leu	Phe	Lys	Met	Leu	Thr	Arg
			165					170					175		
Gly	Ile	Ile	Thr	Glu	Ile	Asn	Gly	Cys	Ile	Ser	Thr	Gly	Lys	Glu	Ala
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Lys	Met	Val	Lys	Thr	Trp	Ala	Glu	Lys	Glu	Met	Arg	Asn	Leu	Ile	Arg
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	275		280		285										
Ser	Arg	Pro	Ala	Pro	Leu	Leu	Lys	Asn	Val	Gln	Leu	Ser	Glu	Ser	Lys
	290		295		300										
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&lt;210&gt; 3029

&lt;211&gt; 344

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3029

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&lt;210&gt; 3030

&lt;211&gt; 114

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3030

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Cys	Thr	Asp	Arg	Gly	Ala	Glu	Asn	Glu	Gly	Ser	Cys	His	Ser	Asp	Gln
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			85					90					95		
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Lys Asn

&lt;210&gt; 3031

&lt;211&gt; 567

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3031

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&lt;210&gt; 3032

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3032

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	50					55				60					
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Glu	Gln	Gly	Ser	Ser	Phe	Gln	Met	Ser	Glu	Gly	Ser	Glu	Ala	Ala	Val
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Ile	Pro	Leu	Asp	Leu	Gly	Cys	Thr	Gln	Val	Thr	Gln	Asp	Gly	Asp	Ile
			100					105				110			
Pro	Asn	Ile	Pro	Ala	Glu	Glu	Asn	Ala	Ser	Thr	Ser	Thr	Pro	Ser	Ser
	115						120				125				
Thr	Leu	Val	Arg	Pro	Ile	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg
	130					135					140				
Thr	Arg	Ser	Lys	Ser	Asp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala
145					150					155				160	
Ala	Pro	Val	Leu	Ser	Cys	Glu	Ala	Ala	Thr	Gln	Thr	Glu	Arg	Arg	Leu
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 <212> DNA  
 <213> Homo sapiens

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 Trp Glu Lys Arg Leu Ala Lys Lys Tyr Tyr Asp Lys Leu Phe Lys Glu  
 35 40 45  
 Tyr Cys Ile Ala Asp Leu Ser Lys Tyr Lys Glu Asn Lys Phe Gly Phe  
 50 55 60  
 Arg Trp Arg Val Glu Lys Glu Val Ile Ser Gly Lys Gly Gln Phe Phe  
 65 70 75 80  
 Cys Gly Asn Lys Tyr Cys Asp Lys Lys Glu Gly Leu Lys Ser Trp Glu

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Val	Asn	Phe	Gly	Tyr	Ile	Glu	His	Gly	Glu	Lys	Arg	Asn	Ala	Leu	Val			
			100					105					110					
Lys	Leu	Arg	Leu	Cys	Gln	Glu	Cys	Ser	Ile	Lys	Leu	Asn	Phe	His	His			
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Glu	Ala	Ser	Lys	Lys	Lys	Asp	Lys	Gly	His	Ser	Ser	Ser	Lys	Lys	Ser			
			165					170					175					
Glu	Asp	Ser	Leu	Leu	Arg	Asn	Ser	Asp	Glu	Glu	Glu	Ser	Ala	Ser	Glu			
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Ser	Glu	Leu	Trp	Lys	Gly	Pro	Leu	Pro	Glu	Thr	Asp	Glu	Lys	Ser	Gln			
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&lt;210&gt; 3035

&lt;211&gt; 878

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3035

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 <212> PRT  
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<211> 697

<212> PRT

<213> Homo sapiens

<400> 3038

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Lys Gly Pro Pro Leu Gly Gly Gly Glu Gly Glu Ala Glu Ser Ala Asp					
	580		585		590
Thr Met Pro Phe Val Met Leu Thr Arg Lys Gly Asn Lys Gln Gln Phe					
	595		600		605
Lys Ile Leu Asn Val Pro Met Ser Ser Gln Leu Ala Ala Asn His Trp					
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Asn Gln Gln Gln Ala Glu Gln Glu Glu Arg Met Arg Met Lys Lys Leu					
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Thr Leu Asp Ile Asn Glu Arg Gln Glu Gln Glu Asp Tyr Gln Glu Met					
	645		650		655
Leu Gln Ser Leu Ala Gln Arg Pro Ala Pro Ala Asn Thr Asn Arg Glu					
	660		665		670
Arg Arg Pro Arg Tyr Gln His Pro Lys Gly Ala Pro Asn Ala Asp Leu					
	675		680		685
Ile Phe Lys Thr Gly Gly Arg Arg Arg					
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&lt;210&gt; 3039

&lt;211&gt; 1836

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3039

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&lt;210&gt; 3040

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3040

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			20					25					30		
Ala	Arg	Ala	Phe	Glu	Asp	Gln	Arg	Val	Ala	Ser	Phe	Cys	Thr	Leu	Thr
		35				40					45				
Asp	Met	Gln	His	Gly	Gln	Asp	Leu	Glu	Gly	Ala	Gln	Glu	Leu	Pro	Leu
	50				55					60					
Cys	Val	Asp	Pro	Gly	Ser	Gly	Lys	Glu	Phe	Met	Asp	Thr	Thr	Gly	Glu
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Arg	Ser	Pro	Ser	Pro	Leu	Thr	Gly	Lys	Val	Asn	Gln	Leu	Glu	Leu	Ile

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420
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600
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720
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1140
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1200

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<210> 3042

<211> 360

<212> PRT

<213> Homo sapiens

<400> 3042

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Leu	Thr	Leu	Ser	Thr	Pro	Lys	Pro	Leu	Val	Asp	Phe	Cys	Asn	Lys	Pro
		20						25					30		
Ile	Leu	Leu	His	Gln	Val	Glu	Ala	Leu	Ala	Ala	Ala	Gly	Val	Asp	His
		35					40					45			
Val	Ile	Leu	Ala	Val	Ser	Tyr	Met	Ser	Gln	Val	Leu	Glu	Lys	Glu	Met
	50					55					60				
Lys	Ala	Gln	Glu	Gln	Arg	Leu	Gly	Ile	Arg	Ile	Ser	Met	Ser	His	Glu
65					70				75						80
Glu	Glu	Pro	Leu	Gly	Thr	Ala	Gly	Pro	Leu	Ala	Leu	Ala	Arg	Asp	Leu
				85					90					95	
Leu	Ser	Glu	Thr	Ala	Asp	Pro	Phe	Phe	Val	Leu	Asn	Ser	Asp	Val	Ile
			100					105					110		
Cys	Asp	Phe	Pro	Phe	Gln	Ala	Met	Val	Gln	Phe	His	Arg	His	His	Gly
		115				120					125				
Gln	Glu	Gly	Ser	Ile	Leu	Val	Thr	Lys	Val	Glu	Glu	Pro	Ser	Lys	Tyr
	130					135					140				
Gly	Val	Val	Val	Cys	Glu	Ala	Asp	Thr	Gly	Arg	Ile	His	Arg	Phe	Val
145					150					155					160
Glu	Lys	Pro	Gln	Val	Phe	Val	Ser	Asn	Lys	Ile	Asn	Ala	Gly	Met	Tyr
			165						170					175	
Ile	Leu	Ser	Pro	Ala	Val	Leu	Arg	Arg	Ile	Gln	Leu	Gln	Pro	Thr	Ser
		180						185					190		
Ile	Glu	Lys	Glu	Val	Phe	Pro	Ile	Met	Ala	Lys	Glu	Gly	Gln	Leu	Tyr
	195					200						205			
Ala	Met	Glu	Leu	Gln	Gly	Phe	Trp	Met	Asp	Ile	Gly	Gln	Pro	Lys	Asp
	210				215						220				
Phe	Leu	Thr	Gly	Met	Cys	Leu	Phe	Leu	Gln	Ser	Leu	Arg	Gln	Lys	Gln
225				230						235				240	
Pro	Glu	Arg	Leu	Cys	Ser	Gly	Pro	Gly	Ile	Val	Gly	Asn	Val	Leu	Val
			245						250					255	
Asp	Pro	Ser	Ala	Arg	Ile	Gly	Gln	Asn	Cys	Ser	Ile	Gly	Pro	Asn	Val
		260					265					270			
Ser	Leu	Gly	Pro	Gly	Val	Val	Val	Glu	Asp	Gly	Val	Cys	Ile	Arg	Arg

275                      280                      285  
 Cys Thr Val Leu Arg Asp Ala Arg Ile Arg Ser His Ser Trp Leu Glu  
 290                      295                      300  
 Ser Cys Ile Val Gly Trp Arg Cys Arg Val Gly Gln Trp Val Arg Met  
 305                      310                      315                      320  
 Glu Asn Val Thr Val Leu Gly Glu Asp Val Ile Val Asn Asp Glu Leu  
 325                      330                      335  
 Tyr Leu Asn Gly Ala Ser Val Leu Pro His Lys Ser Ile Gly Glu Ser  
 340                      345                      350  
 Val Pro Glu Pro Arg Ile Ile Met  
 355                      360

&lt;210&gt; 3043

&lt;211&gt; 394

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3043

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 240  
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 300  
 gagggtcata ttcttggtat ccccaggagg tcaacagggg cttcattttt ctgagggact  
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&lt;210&gt; 3044

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3044

Met Lys Pro Leu Leu Thr Ser Trp Gly Tyr Gln Glu Tyr Asp Pro Pro  
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 Gln Pro Arg Gly Lys Gly Asn Cys Leu Leu Cys Leu Arg Val Pro Lys  
 20                      25                      30  
 Gln Arg Leu Gly Asn Ile Ser Leu Lys Leu Glu Asn His Cys Pro Phe  
 35                      40                      45  
 Asn Asp Thr Gln Pro Glu Asp Pro Lys Thr Gly Ser Pro Leu Lys Cys  
 50                      55                      60  
 Gln Arg His Val Ser Trp Ser Glu Val Arg Glu Ala Asp Ser Gly Leu  
 65                      70                      75                      80  
 Leu Leu Gly Gln Thr Pro Val Lys Arg Lys Arg Trp His His Glu Thr  
 85                      90                      95  
 Ser Ser Phe Ser Pro Cys Leu Trp Leu Lys Ala Arg Ala Ser Arg Ser  
 100                      105                      110  
 Lys Glu Ile



115

<210> 3045  
 <211> 605  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 420  
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 480  
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 605

<210> 3046  
 <211> 72  
 <212> PRT  
 <213> Homo sapiens

<400> 3046  
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 20 25 30  
 Cys Met Ala Phe Asn Thr Ser Gly Met Leu Leu Val Thr Thr Asp Thr  
 35 40 45  
 Leu Gly His Asp Phe His Val Phe Gln Ile Leu Thr His Pro Trp Ser  
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<210> 3047  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 3047

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 120  
 ttggttgagt caggaattca gtttatggat gagccagaaa tggcagtgtt tctgcagaat  
 180  
 gccaaaaccc tgctaaaaaa aatctcggaa gcatcaaagg catttcagat ggagaaaata  
 240  
 gaacatggct atgagaacat gaaccacttc acagtcaacc tcaatagaga agaaaagata  
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 atacgtgaaa ttgactttta cagagaagat gaagatgaag aagaagaaga aggcggagaa  
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<210> 3048

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3048

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		20						25				30			
Leu	Val	Glu	Ser	Gly	Ile	Gln	Phe	Met	Asp	Glu	Pro	Glu	Met	Ala	Val
	35					40					45				
Phe	Leu	Gln	Asn	Ala	Lys	Thr	Leu	Leu	Lys	Lys	Ile	Ser	Glu	Ala	Ser
	50					55					60				
Lys	Ala	Phe	Gln	Met	Glu	Lys	Ile	Glu	His	Gly	Tyr	Glu	Asn	Met	Asn
65				70						75				80	
His	Phe	Thr	Val	Asn	Leu	Asn	Arg	Glu	Glu	Lys	Ile	Ile	Arg	Glu	Ile
			85					90					95		
Asp	Phe	Tyr	Arg	Glu	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gly	Glu
		100						105					110		
Gly	Glu	Lys	Glu	Glu	Lys	Glu	Lys	Trp	Glu						
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<210> 3049

<211> 599

<212> DNA

<213> Homo sapiens

<400> 3049

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 300

gaggccagca gcttcacgga ccttgagacc atcgccaacc tgggtctggg tttctgggac  
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 599

<210> 3050

<211> 177

<212> PRT

<213> Homo sapiens

<400> 3050

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Val	His	Phe	Pro	Ser	Leu	Asn	Glu	Ser	Ser	Ala	Glu	Val	Leu	Glu	Tyr
			20					25					30		
Thr	Ile	Lys	Glu	Glu	Lys	Ser	Ile	Leu	Tyr	Leu	Glu	Gly	Ser	Ala	Leu
		35				40						45			
Val	Phe	Glu	Asp	Ile	Phe	Arg	Leu	Ile	Ala	Phe	Tyr	Cys	Val	Ser	Arg
	50				55				60						
Asp	Leu	Leu	Pro	Phe	Thr	Leu	Arg	Leu	Pro	Gln	Ala	Ile	Leu	Glu	Ala
65					70				75					80	
Ser	Ser	Phe	Thr	Asp	Leu	Glu	Thr	Ile	Ala	Asn	Leu	Gly	Leu	Gly	Phe
			85					90					95		
Trp	Asp	Ser	Ser	Leu	Asn	Pro	Pro	Gln	Glu	Arg	Gly	Lys	Pro	Ala	Glu
			100					105					110		
Pro	Pro	Arg	Asp	Arg	Ala	Pro	Gly	Phe	Pro	Leu	Val	Ser	Ser	Leu	Arg
		115					120					125			
Pro	Thr	Ala	His	Asp	Ala	Asn	Cys	Ala	Cys	Glu	Ile	Glu	Leu	Ser	Val
		130				135						140			
Gly	Asn	Asp	Arg	Leu	Trp	Phe	Val	Asn	Pro	Ile	Phe	Ile	Glu	Asp	Cys
145					150				155					160	
Ser	Ser	Ala	Leu	Pro	Thr	Asp	Gln	Pro	Pro	Leu	Gly	Asn	Cys	Pro	Ser
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Arg

<210> 3051

<211> 820

<212> DNA

<213> Homo sapiens

<400> 3051

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 120  
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 180

tcctcgcca cgcgcgaca acaggcctcc tcctccccag tccctggagg gactccgaca  
 240  
 gatgcactat caccgncaac gactatgaca agtcacccat caagcccaaa atgtggagtg  
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 480  
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 600  
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 660  
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 720  
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<210> 3052

<211> 62

<212> PRT

<213> Homo sapiens

<400> 3052

Arg	Leu	Ser	Gly	Tyr	Gln	His	Asn	Ile	Pro	Pro	Thr	Phe	Ser	Ser	Gln
1				5					10					15	
Gly	Thr	Pro	Ser	Ser	Ala	Thr	Val	Ala	Gln	Gln	Ala	Ser	Ser	Ser	Pro
			20					25					30		
Val	Pro	Gly	Gly	Thr	Pro	Thr	Asp	Ala	Leu	Ser	Pro	Xaa	Thr	Thr	Met
		35					40					45			
Thr	Ser	His	Pro	Ser	Ser	Pro	Lys	Cys	Gly	Val	Ser	Pro	Leu		
		50				55					60				

<210> 3053

<211> 2625

<212> DNA

<213> Homo sapiens

<400> 3053

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 120  
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 300

gatgttatta atgctatcct taagcaacat acagaagaaa aagaatttgt tgagaagcac  
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420  
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480  
cggaggagct ttcattctct gaagaaaaat gaaaagctac ttagagaact taggaacttg  
540  
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600  
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660  
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720  
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780  
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1920

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&lt;210&gt; 3054

&lt;211&gt; 417

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3054

Ser	Gly	Xaa	Ser	Glu	His	Thr	Ser	Xaa	Met	Leu	Ser	Leu	Ser	His	Gln
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			20					25						30	
Thr	Val	Lys	Asp	Gly	Leu	Ser	Leu	Gln	Phe	Lys	Arg	Phe	Arg	Glu	Thr
			35				40						45		
Val	Pro	Thr	Trp	Asp	Thr	Ile	Arg	Asp	Glu	Glu	Asp	Val	Leu	Asp	Glu
			50				55				60				
Leu	Leu	Gln	Tyr	Leu	Gly	Val	Thr	Ser	Pro	Glu	Cys	Leu	Gln	Arg	Thr
65					70					75				80	
Gly	Ile	Ser	Leu	Asn	Ile	Pro	Ala	Pro	Gln	Pro	Val	Cys	Ile	Ser	Glu
				85				90						95	
Lys	Gln	Glu	Asn	Asp	Val	Ile	Asn	Ala	Ile	Leu	Lys	Gln	His	Thr	Glu
			100					105					110		
Glu	Lys	Glu	Phe	Val	Glu	Lys	His	Phe	Asn	Asp	Leu	Asn	Met	Lys	Ala
			115				120					125			
Val	Glu	Gln	Asp	Glu	Pro	Ile	Pro	Gln	Lys	Pro	Gln	Ser	Ala	Phe	Tyr
			130				135					140			
Tyr	Cys	Arg	Leu	Leu	Leu	Ser	Ile	Leu	Gly	Met	Asn	Ser	Trp	Asp	Lys
145					150					155				160	
Arg	Arg	Ser	Phe	His	Leu	Leu	Lys	Lys	Asn	Glu	Lys	Leu	Leu	Arg	Glu
				165					170					175	
Leu	Arg	Asn	Leu	Asp	Ser	Arg	Gln	Cys	Arg	Glu	Thr	His	Lys	Ile	Ala

			180				185				190				
Val	Phe	Tyr	Val	Ala	Glu	Gly	Gln	Glu	Asp	Lys	His	Ser	Ile	Leu	Thr
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Asn	Thr	Gly	Gly	Ser	Gln	Ala	Tyr	Glu	Asp	Phe	Val	Ala	Gly	Leu	Gly
210			215				220								
Trp	Glu	Val	Asn	Leu	Thr	Asn	His	Cys	Gly	Phe	Met	Gly	Gly	Leu	Gln
225			230				235				240				
Lys	Asn	Lys	Ser	Thr	Gly	Leu	Thr	Thr	Pro	Tyr	Phe	Ala	Thr	Ser	Thr
			245				250				255				
Val	Glu	Val	Ile	Phe	His	Val	Ser	Thr	Arg	Met	Pro	Ser	Asp	Ser	Asp
			260				265				270				
Asp	Ser	Leu	Thr	Lys	Lys	Leu	Arg	His	Leu	Gly	Asn	Asp	Glu	Val	His
275			280				285								
Ile	Val	Trp	Ser	Glu	His	Thr	Arg	Asp	Tyr	Arg	Arg	Gly	Ile	Ile	Pro
290			295				300								
Thr	Glu	Phe	Gly	Asp	Val	Leu	Ile	Val	Ile	Tyr	Pro	Met	Lys	Asn	His
305			310				315				320				
Met	Phe	Ser	Ile	Gln	Ile	Met	Lys	Lys	Pro	Glu	Val	Pro	Phe	Phe	Gly
			325				330				335				
Pro	Leu	Phe	Asp	Gly	Ala	Ile	Val	Asn	Gly	Lys	Val	Leu	Pro	Ile	Met
			340				345				350				
Val	Arg	Ala	Thr	Ala	Ile	Asn	Ala	Ser	Arg	Ala	Leu	Lys	Ser	Leu	Ile
355			360				365								
Pro	Leu	Tyr	Gln	Asn	Phe	Tyr	Glu	Glu	Arg	Ala	Arg	Tyr	Leu	Gln	Thr
370			375				380								
Ile	Val	Gln	His	His	Leu	Glu	Pro	Thr	Thr	Phe	Glu	Asp	Phe	Ala	Ala
385			390				395				400				
Gln	Val	Phe	Ser	Pro	Ala	Pro	Tyr	His	His	Leu	Pro	Ser	Asp	Ala	Asp
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His															

<210> 3055

<211> 905

<212> DNA

<213> Homo sapiens

<400> 3055

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120

tactgtgaac tacgtgtccg ggaaacatgc ctgcatattc tacgatgaga ataccaaaca  
180

ttatgagctg ttaaactaca gtgagcatgg gacaacggtg gacaatgtgc tgtattcatg  
240

tgactttctcg gagaagaccc cgccaacccc cccaagcagt attgttgcca aagtgcagag  
300

tgatcatcagg cgccgccggc accagaaaca ggacgaagag ccaagtgagg aggcagccat  
360

gatgagttcc caggcccagg ggccgcagcg gagaccctgc aattgcaaag ccagcagctc  
420

gagcttgatt gggggcagtg gggccggctg ggagggcaca gccttactgc accatggcag  
480

ctacatcaag ctgggctgcc tgcagtttgt cttcagcatc actgagtttg cgaccaaaca  
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 905

&lt;210&gt; 3056

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3056

Met	Ser	Tyr	Arg	Thr	Leu	Tyr	Ile	Gly	Thr	Gly	Ala	Asp	Met	Asp	Val
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Cys	Leu	Thr	Asn	Tyr	Gly	His	Cys	Asn	Tyr	Val	Ser	Gly	Lys	His	Ala
			20					25					30		
Cys	Ile	Phe	Tyr	Asp	Glu	Asn	Thr	Lys	His	Tyr	Glu	Leu	Leu	Asn	Tyr
		35				40					45				
Ser	Glu	His	Gly	Thr	Thr	Val	Asp	Asn	Val	Leu	Tyr	Ser	Cys	Asp	Phe
	50				55					60					
Ser	Glu	Lys	Thr	Pro	Pro	Thr	Pro	Pro	Ser	Ser	Ile	Val	Ala	Lys	Val
65				70					75					80	
Gln	Ser	Val	Ile	Arg	Arg	Arg	Arg	His	Gln	Lys	Gln	Asp	Glu	Glu	Pro
			85					90					95		
Ser	Glu	Glu	Ala	Ala	Met	Met	Ser	Ser	Gln	Ala	Gln	Gly	Pro	Gln	Arg
			100				105					110			
Arg	Pro	Cys	Asn	Cys	Lys	Ala	Ser	Ser	Ser	Ser	Leu	Ile	Gly	Gly	Ser
		115				120					125				
Gly	Ala	Gly	Trp	Glu	Gly	Thr	Ala	Leu	Leu	His	His	Gly	Ser	Tyr	Ile
	130				135					140					
Lys	Leu	Gly	Cys	Leu	Gln	Phe	Val	Phe	Ser	Ile	Thr	Glu	Phe	Ala	Thr
145				150					155					160	
Lys	Gln	Pro	Lys	Gly	Asp	Ala	Ser	Leu	Leu	Gln	Asp	Gly	Val	Leu	Ala
			165				170						175		
Glu	Lys	Leu	Ser	Leu	Lys	Pro	His	Gln	Gly	Pro	Val	Leu	Arg	Ser	Asn
		180					185					190			
Ser	Val	Pro													
		195													

&lt;210&gt; 3057

&lt;211&gt; 2169

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3057

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120  
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180  
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240  
atcaacacgc cagccctgct ggcacctcaa gcgggggctc gggaaaaggc tgcccgatcc  
300  
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360  
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420  
cctcgggcag ccgtggtgca gacacagacg ttcatggccc gaggcgcccg aaagcagaaa  
480  
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 2160  
 aaaaaaaaaa  
 2169

&lt;210&gt; 3058

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3058

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Ser	Val	Arg	Tyr	Cys	Ile	Lys	Ala	Thr	Leu	His	Arg	Pro	Trp	Val	Pro
		20						25					30		
Ala	Arg	Arg	Ala	Arg	Lys	Val	Phe	Thr	Val	Ile	Glu	Pro	Val	Asp	Ile
		35				40						45			
Asn	Thr	Pro	Ala	Leu	Leu	Ala	Pro	Gln	Ala	Gly	Ala	Arg	Glu	Lys	Val
		50				55					60				
Ala	Arg	Ser	Trp	Tyr	Cys	Asn	Arg	Gly	Leu	Val	Ser	Leu	Ser	Ala	Lys
65					70				75					80	
Ile	Asp	Arg	Lys	Gly	Tyr	Thr	Pro	Gly	Glu	Val	Ile	Pro	Val	Phe	Ala
			85						90					95	
Glu	Ile	Asp	Asn	Gly	Ser	Thr	Arg	Pro	Val	Leu	Pro	Arg	Ala	Ala	Val
			100					105					110		
Val	Gln	Thr	Gln	Thr	Phe	Met	Ala	Arg	Gly	Ala	Arg	Lys	Gln	Lys	Arg
		115				120						125			
Ala	Val	Val	Ala	Ser	Leu	Ala	Gly	Glu	Pro	Val	Gly	Pro	Gly	Gln	Arg
		130				135					140				
Ala	Leu	Trp	Gln	Gly	Arg	Ala	Leu	Arg	Ile	Pro	Pro	Val	Gly	Pro	Ser
145					150				155					160	
Ile	Leu	His	Cys	Arg	Val	Leu	His	Val	Asp	Tyr	Ala	Leu	Lys	Val	Cys
			165						170					175	
Val	Asp	Ile	Pro	Gly	Thr	Ser	Lys	Leu	Leu	Glu	Leu	Pro	Leu	Val	
			180					185				190			
Ile	Gly	Thr	Ile	Pro	Leu	His	Pro	Phe	Gly	Ser	Arg	Ser	Ser	Ser	Val

195	200	205
Gly Ser His Ala Ser Phe Leu Leu Asp Trp Arg Leu Gly Ala Leu Pro		
210	215	220
Glu Arg Pro Glu Ala Pro Pro Glu Tyr Ser Glu Val Val Ala Asp Thr		
225	230	235
Glu Glu Ala Ala Leu Gly Gln Ser Pro Phe Pro Leu Pro Gln Asp Pro		
245	250	255
Asp Met Ser Leu Glu Gly Pro Phe Phe Ala Tyr Ile Gln Glu Phe Arg		
260	265	270
Tyr Arg Pro Pro Pro Leu Tyr Ser Glu Glu Asp Pro Asn Pro Leu Leu		
275	280	285
Gly Asp Met Arg Pro Arg Cys Met Thr Cys		
290	295	

&lt;210&gt; 3059

&lt;211&gt; 1411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3059

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180
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240
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300
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360
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900
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960
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1020

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 1260  
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 1320  
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<210> 3060

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3060

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			20					25				30		
Arg	Thr	Tyr	Ser	Arg	Lys	Lys	Gly	Gly	Arg	Lys	Ser	Arg	Ser	Lys
		35					40					45		
Arg	Ser	Trp	Ser	Arg	Asp	Leu	Gln	Pro	Arg	Ser	His	Ser	Tyr	Asp
		50				55					60			
Arg	Arg	Arg	His	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Tyr	Gly	Ser	Arg
65					70					75				80
Lys	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Gly	Lys	Ser	Tyr	Arg
			85					90						95
Gln	Arg	Ser	Arg	Ser	Lys	Ser	Arg	Thr	Arg	Arg	Ser	Arg	Ser	Arg
			100					105					110	
Arg	Leu	Arg	Ser	His	Ser	Arg	Ser	Ser	Glu	Arg	Ser	Ser	His	Arg
			115					120					125	
Thr	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Glu	Arg	Arg	Lys	Gly	Arg	Asp
			130			135					140			
Glu	Lys	Arg	Glu	Lys	Glu	Lys	Asp	Lys	Gly	Lys	Asp	Lys	Glu	Leu
145					150					155				160
Asn	Ile	Lys	Arg	Gly	Glu	Ser	Gly	Asn	Ile	Lys	Ala	Gly	Leu	Glu
			165					170						175
Leu	Pro	Pro	Ala	Glu	Gln	Ala	Lys	Ala	Arg	Leu	Gln	Leu	Val	Leu
			180					185					190	
Ala	Ala	Ala	Lys	Ala	Asp	Glu	Ala	Leu	Lys	Ala	Lys	Glu	Arg	Asn
			195				200					205		
Glu	Glu	Ala	Lys	Arg	Arg	Lys	Glu	Glu	Asp	Gln	Ala	Thr	Leu	Val
			210			215					220			
Gln	Val	Lys	Arg	Val	Lys	Glu	Ile	Glu	Ala	Ile	Glu	Ser	Asp	Ser
225					230					235				240
Val	Gln	Gln	Thr	Phe	Arg	Ser	Ser	Lys	Glu	Val	Lys	Lys	Ser	Val
			245						250					255
Pro	Ser	Glu	Val	Lys	Gln	Ala	Thr	Ser	Thr	Ser	Gly	Pro	Ala	Ser

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Val	Ala	Asp	Pro	Pro	Ser	Thr	Glu	Lys	Glu	Ile	Asp	Pro	Thr	Ser	Ile
	275						280				285				
Pro	Thr	Ala	Ile	Lys	Tyr	Gln	Asp	Asp	Asn	Ser	Leu	Ala	His	Pro	Asn
	290					295					300				
Leu	Phe	Ile	Glu	Lys	Ala	Asp	Ala	Glu	Glu	Lys	Trp	Phe	Lys	Arg	Leu
305					310					315				320	
Ile	Ala	Leu	Arg	Gln	Glu	Arg	Leu	Met	Gly	Ser	Pro	Val	Ala		
			325						330						

&lt;210&gt; 3061

&lt;211&gt; 1554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3061

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120
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180
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240
gggaaagcgc ggagggcagc ctgcatgccg aggccagag caagatccgc cagagcccct
300
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360
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1140

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<210> 3062

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3062

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			20					25					30		
Ser	Ser	Ser	Phe	Arg	Leu	Leu	Gln	Glu	Ala	Leu	Glu	Ala	Glu	Glu	Arg
		35					40					45			
Gly	Gly	Thr	Pro	Ala	Phe	Leu	Pro	Ser	Ser	Leu	Ser	Pro	Gln	Ser	Ser
		50				55					60				
Leu	Pro	Ala	Ser	Arg	Ala	Leu	Ala	Thr	Pro	Pro	Lys	Leu	His	Thr	Cys
65					70					75				80	
Glu	Lys	Cys	Ser	Thr	Ser	Ile	Ala	Asn	Gln	Ala	Val	Arg	Ile	Gln	Glu
				85					90					95	
Gly	Arg	Tyr	Arg	His	Pro	Gly	Cys	Tyr	Thr	Cys	Ala	Asp	Cys	Gly	Leu
			100					105					110		
Asn	Leu	Lys	Met	Arg	Gly	His	Phe	Trp	Val	Gly	Asp	Glu	Leu	Tyr	Cys
		115					120					125			
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<210> 3063

<211> 386

<212> DNA

<213> Homo sapiens

<400> 3063

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180

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<210> 3064

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3064

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		20					25					30			
Tyr	Gln	Cys	Ser	Arg	Pro	Ala	Pro	Leu	His	Ser	Arg	Asp	Leu	His	Ser
	35					40					45				
Met	Ile	Val	Ala	Ala	Phe	Gln	Cys	Leu	Cys	Val	Trp	Leu	Thr	Glu	His
	50				55					60					
Pro	Asp	Met	Leu	Asp	Glu	Lys	Asp	Tyr	Leu	Lys	Glu	Val	Leu	Glu	Ile
65				70					75				80		
Val	Glu	Leu	Gly	Ile	Ser	Gly	Ser	Lys	Ser	Lys	Asn	Asn	Glu	Gln	Glu
		85					90						95		
Val	Lys	Tyr	Lys	Gly	Asp	Lys	Glu	Pro	Asn	Pro	Ala	Ser	Met	Arg	Val
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<210> 3065

<211> 2104

<212> DNA

<213> Homo sapiens

<400> 3065

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1980  
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<210> 3066  
<211> 183  
<212> PRT  
<213> Homo sapiens

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Leu Gln Gly Glu His Ser Gln Asn Gly Glu Glu Glu Pro Glu Thr Glu  
35 40 45  
Pro Val Gly Glu Glu Ser Ile Ser Asp Ala Glu Lys Val Ala Met Xaa  
50 55 60  
Ser Gln Gly Pro Xaa Thr Ala Pro Gly Ser Pro Cys Arg Ser Cys Gly  
65 70 75 80  
Thr Cys Cys Thr Arg Gly Thr Xaa Leu Lys Ser Lys Val Phe Leu Leu  
85 90 95  
Gln Glu Glu Leu Ala Tyr Tyr Lys Ser Glu Glu Met Glu Glu Glu Asn  
100 105 110  
Arg Ile Pro Gln Pro Pro Pro Ile Ala His Pro Arg Thr Ser Pro Gln  
115 120 125  
Pro Glu Ser Gly Ile Lys Arg Leu Phe Ser Phe Phe Ser Arg Asp Lys  
130 135 140  
Lys Arg Leu Ala Asn Thr Gln Arg Asn Val His Ile Gln Glu Ser Phe  
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<210> 3067  
<211> 645  
<212> DNA  
<213> Homo sapiens

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420

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<210> 3068

<211> 204

<212> PRT

<213> Homo sapiens

<400> 3068

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Pro	Pro	Ala	Ala	Met	Ser	Gly	Ser	Pro	Ala	Pro	Lys	Ala	Gly	Tyr	Ala
		20					25					30			
Ser	Pro	Asn	Arg	Ala	Gln	Gly	Pro	Ser	Xaa	Val	Leu	Val	His	Gln	Ala
	35				40						45				
Arg	Glu	Pro	Thr	Ala	Gly	Ser	Pro	Pro	Cys	Ser	Leu	Pro	Arg	Pro	Asp
	50				55						60				
Leu	Gln	Pro	Pro	Ser	Thr	Pro	Pro	Pro	Pro	Val	His	Lys	Glu	Gln	Lys
65				70				75						80	
Lys	Ser	Asp	Pro	Pro	Pro	Pro	Pro	Gly	Lys	Phe	Lys	Ser	Phe	Leu	
		85						90					95		
Pro	Pro	Arg	Ser	Pro	Gly	Asn	Ser	Ala	Leu	Gly	Pro	Arg	Arg	Gly	Trp
	100							105					110		
Gly	Trp	Ile	Ala	Ala	Gly	Gly	Ala	Pro	Ala	Met	Pro	Arg	Pro	Pro	Ser
	115						120					125			
Gly	Ala	Gly	Asp	Arg	Glu	Ile	Pro	Arg	Asp	Leu	Ala	Cys	Ala	Pro	Tyr
	130				135						140				
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145				150					155					160	
Arg	Arg	Cys	Gly	Ser	Lys	Glu	Pro	Glu	Ala	Ala	Ala	Ser	Arg	Pro	Pro
		165						170					175		
Ser	Pro	Ala	Glu	Glu	Glu	Pro	Pro	Pro	Val	Ser	Ala	Glu	Glu	Thr	Pro
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<210> 3069

<211> 1561

<212> DNA

<213> Homo sapiens

<400> 3069

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 180

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&lt;210&gt; 3070

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3070

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 Leu Gly Ser Ser Val Leu His Trp Gly Tyr Leu Pro Ser Lys Asp Asp  
 35 40 45  
 Tyr Phe Gln Val Leu Cys Val Ala Asp Val Val Ile Ser Thr Ala Lys  
 50 55 60  
 His Glu Phe Phe Gly Val Ala Met Leu Glu Ala Val Tyr Cys Gly Cys  
 65 70 75 80  
 Tyr Pro Leu Cys Pro Lys Asp Leu Val Tyr Pro Glu Ile Phe Pro Ala  
 85 90 95  
 Glu Tyr Leu Tyr Ser Thr Pro Glu Gln Leu Ser Lys Arg Leu Gln Asn  
 100 105 110  
 Phe Cys Lys Arg Pro Asp Ile Ile Arg Lys His Leu Tyr Lys Gly Glu  
 115 120 125  
 Ile Ala Pro Phe Ser Trp Ala Ala Leu His Gly Lys Phe Arg Ser Leu  
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 Leu Thr Thr Glu Pro Arg Glu Asp Leu  
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&lt;210&gt; 3071

&lt;211&gt; 3343

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3071

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 3343

<210> 3072

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

Met	Leu	Glu	Arg	Arg	Cys	Arg	Gly	Pro	Leu	Ala	Met	Gly	Leu	Ala	Gln
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Pro	Arg	Leu	Leu	Ser	Gly	Pro	Ser	Gln	Glu	Ser	Pro	Gln	Thr	Leu	Gly
		20						25					30		
Lys	Glu	Ser	Arg	Gly	Leu	Arg	Gln	Gln	Gly	Thr	Ser	Val	Ala	Gln	Ser
		35					40					45			
Gly	Ala	Gln	Ala	Pro	Gly	Arg	Ala	His	Arg	Cys	Ala	His	Cys	Arg	Arg
		50				55				60					
His	Phe	Pro	Gly	Trp	Val	Ala	Leu	Trp	Leu	His	Thr	Arg	Arg	Cys	Gln
65					70				75					80	
Ala	Arg	Leu	Pro	Leu	Pro	Cys	Pro	Glu	Cys	Gly	Arg	Arg	Phe	Arg	His
			85					90					95		
Ala	Pro	Phe	Leu	Ala	Leu	His	Arg	Gln	Val	His	Ala	Ala	Ala	Thr	Pro
			100					105					110		
Asp	Leu	Gly	Phe	Ala	Cys	His	Leu	Cys	Gly	Gln	Ser	Phe	Arg	Gly	Trp

115	120	125
Val Ala Leu Val Leu His Leu Arg Ala His Ser Ala Ala Lys Arg Pro		
130	135	140
Ile Ala Cys Pro Lys Cys Glu Arg Arg Phe Trp Arg Arg Lys Gln Leu		
145	150	155
Arg Ala His Leu Arg Arg Cys His Pro Pro Ala Pro Glu Ala Arg Pro		
165	170	175
Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu		
180	185	190
Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala		
195	200	205
Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala		
210	215	220
Pro Arg Pro Gly Gly Asp Ala Val Asp Arg Pro Phe Gln Cys Ala Cys		
225	230	235
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg		
245	250	255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg		
260	265	270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly		
275	280	285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys		
290	295	300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly		
305	310	315
Arg Pro Arg Pro Pro Ala Arg Gly Ala Pro Ser Cys Gln Pro Ala		
325	330	335
Pro Arg Ser Pro Arg Pro Ser Pro Pro Arg Arg Tyr Leu		
340	345	

&lt;210&gt; 3073

&lt;211&gt; 791

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3073

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 120  
 gccggagggg ccggggcggg ggccgcgccc ggaccgcacg tccccccacg ggggtcggtg  
 180  
 cctggggatc ctgtccgcac ccaactgcaac atcacggagt cataccctgc tgtgcccccc  
 240  
 atctggctcg tggagtctga tgaccctaac ttggctgctg tcttggagag gctggtggac  
 300  
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 360  
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 420  
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 480  
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 791

<210> 3074

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

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Arg	Gly	His	Glu	Arg	Phe	Arg	Ile	Ala	Ser	Ala	Cys	Leu	Asp	Glu	Leu
		20					25					30			
Ser	Cys	Glu	Phe	Leu	Leu	Ala	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Ala
		35				40					45				
Ala	Pro	Gly	Pro	His	Leu	Pro	Pro	Arg	Gly	Ser	Val	Pro	Gly	Asp	Pro
	50					55					60				
Val	Arg	Ile	His	Cys	Asn	Ile	Thr	Glu	Ser	Tyr	Pro	Ala	Val	Pro	Pro
65				70					75					80	
Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu	Ala	Ala	Val	Leu	Glu
			85					90					95		
Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu	Leu	Leu	Gln	His	Leu
		100					105					110			
Lys	Arg	Ile	Ser	Asp	Leu	Cys	Lys	Leu	Tyr	Asn	Leu	Pro	Gln	His	
	115				120					125					
Pro	Asp	Val	Glu	Met	Leu	Asp	Gln	Pro	Leu	Pro	Ala	Glu	Gln	Cys	Thr
	130				135					140					
Gln	Glu	Asp	Val	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Glu	Met	Pro	Glu	Asp
145				150				155						160	
Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu	Glu	Glu	Pro	Ala	Glu
			165				170						175		
Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys	Glu	Asn	Leu	Ala	Ile
	180						185					190			
Leu	Glu	Lys	Ile	Lys	Lys	Asn	Gln	Arg	Gln	Asp	Tyr	Leu	Asn	Gly	Ala
	195					200					205				
Val	Ser	Gly	Ser	Val	Gln	Ala	Thr	Asp	Arg	Leu	Met	Lys	Glu	Leu	Gln
	210				215					220					
Gly	Tyr	Ile	Thr	Xaa	Ser	Gln	Ser	Phe	Lys	Gly	Gly	Asn	Tyr	Xaa	Ser
225				230				235						240	
Ser	Asn	Ser	Trp	Asn	Asp	Ser	Leu	Tyr	Gly	Trp	Asp	Val	Gln	Leu	Leu
			245				250						255		
Lys	Val	Asp	Gln	Gly	Ser	Val									
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<210> 3075

<211> 603



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3075

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180
tctacaggcc ttgcactggc agccaagatc atcaaagtga agaacgtaa ggaccgggag
240
gatgtgaaga atgaggtcaa catcatgaac cagctcagcc acgtaaactt gatccaactt
300
tatgatgcgt ttgagagcaa gagcagcttc actctgatca tggagtatgt ggatggaggc
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420
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480
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540
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600
ccg
603

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&lt;210&gt; 3076

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3076

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Pro Leu Gly Gly Lys Asn Phe Leu Lys Lys Met Val Gly Lys Asn Pro
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Pro Pro Pro Pro Pro Phe Phe Ser Pro Val Gly Ala Lys Lys Lys Asn
20          25          30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35          40          45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50          55          60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65          70          75          80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85          90          95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100         105         110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115         120         125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130         135         140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145         150         155         160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

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				165					170					175	
Ile	Lys	Ile	Ile	Asp	Phe	Gly	Leu	Ala	Arg	Arg	Tyr	Lys	Pro	Arg	Glu
			180					185					190		
Lys	Leu	Lys	Val	Asn	Phe	Gly	Thr	Pro							
		195					200								

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<210> 3077
<211> 1377
<212> DNA
<213> Homo sapiens
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120
gtggaggtgg cgaacggccg ctccctgggtg tggggagccg aggcggtgca ggccctccgg
180
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240
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420
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660
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720
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960
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1080
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1140
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1200
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1260

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<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

Met	Leu	Val	Val	Glu	Val	Ala	Asn	Gly	Arg	Ser	Leu	Val	Trp	Gly	Ala
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Glu	Ala	Val	Gln	Ala	Leu	Arg	Glu	Arg	Leu	Gly	Val	Gly	Gly	Arg	Thr
			20					25					30		
Val	Gly	Ala	Leu	Pro	Arg	Gly	Pro	Arg	Gln	Asn	Ser	Arg	Leu	Gly	Leu
	35						40					45			
Pro	Leu	Leu	Leu	Met	Pro	Glu	Glu	Ala	Arg	Leu	Leu	Ala	Glu	Ile	Gly
	50					55				60					
Ala	Val	Thr	Leu	Val	Ser	Ala	Pro	Arg	Pro	Asp	Ser	Arg	His	His	Ser
65					70					75				80	
Leu	Ala	Leu	Thr	Ser	Phe	Lys	Arg	Gln	Gln	Glu	Glu	Ser	Phe	Gln	Glu
				85					90					95	
Gln	Ser	Ala	Leu	Ala	Ala	Glu	Ala	Arg	Glu	Thr	Arg	Arg	Gln	Glu	Leu
			100					105					110		
Leu	Glu	Lys	Ile	Thr	Glu	Gly	Gln	Ala	Ala	Lys	Lys	Gln	Lys	Leu	Glu
	115					120						125			
Gln	Ala	Ser	Gly	Ala	Ser	Ser	Ser	Gln	Glu	Ala	Gly	Ser	Ser	Gln	Ala
	130					135					140				
Ala	Lys	Glu	Asp	Glu	Thr	Ser	Asp	Gly	Gln	Ala	Ser	Gly	Glu	Gln	Glu
145					150					155				160	
Glu	Ala	Gly	Pro	Ser	Ser	Ser	Gln	Ala	Gly	Pro	Ser	Asn	Gly	Val	Ala
				165					170					175	
Pro	Leu	Pro	Arg	Ser	Ala	Leu	Leu	Val	Gln	Leu	Ala	Thr	Ala	Arg	Pro
			180					185					190		
Arg	Pro	Val	Lys	Ala	Arg	Pro	Leu	Asp	Trp	Arg	Val	Gln	Ser	Lys	Asp
	195					200						205			
Trp	Pro	His	Ala	Gly	Arg	Pro	Ala	His	Glu	Leu	Arg	Tyr	Ser	Ile	Tyr
	210					215					220				
Arg	Asp	Leu	Trp	Glu	Arg	Gly	Phe	Phe	Leu	Ser	Ala	Ala	Gly	Lys	Phe
225					230					235				240	
Gly	Gly	Asp	Phe	Leu	Val	Tyr	Pro	Gly	Asp	Pro	Leu	Arg	Phe	His	Ala
			245						250					255	
His	Tyr	Ile	Ala	Gln	Cys	Trp	Ala	Pro	Glu	Asp	Thr	Ile	Pro	Leu	Gln
			260					265					270		
Asp	Leu	Val	Ala	Ala	Gly	Arg	Leu	Gly	Thr	Ser	Val	Arg	Lys	Thr	Leu
	275						280					285			
Leu	Leu	Cys	Ser	Pro	Gln	Pro	Asp	Gly	Lys	Val	Val	Tyr	Thr	Ser	Leu
	290					295					300				
Gln	Trp	Ala	Ser	Leu	Gln										
305					310										

<210> 3079

<211> 1785

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3079

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120  
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240  
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600  
gatgcagacc ctgaagtttg caagaaaatg tgcaagagaa acgagttcga gtctgtcctg  
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gccttggtgg cctattacca aatggaacac cgagcatcac tgcggctgct gctcctcaag  
720  
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780  
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1680  
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<210> 3080

<211> 500.

<212> PRT

<213> Homo sapiens

<400> 3080

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Cys	Ser	Pro	Thr	Pro	Pro	Pro	Val	Pro	Arg	Arg	Gly	Thr	His	Thr	Thr
			20					25					30		
Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
		35					40					45			
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
	50					55					60				
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
65					70					75					80
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
			85					90						95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
		100						105				110			
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
	115					120						125			
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
	130					135					140				
Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
145				150					155					160	
Glu	Val	Ile	Phe	Ala	Asp	Leu	Ala	Arg	Arg	Lys	Asp	Asp	Ala	Gln	Gln
		165						170					175		
Arg	Ser	Trp	Ala	Leu	Tyr	Glu	Asp	Glu	Gly	Val	Ile	Arg	Cys	Tyr	Leu
		180						185				190			
Glu	Glu	Leu	Leu	His	Ile	Leu	Thr	Asp	Ala	Asp	Pro	Glu	Val	Cys	Lys
	195					200					205				
Lys	Met	Cys	Lys	Arg	Asn	Glu	Phe	Glu	Ser	Val	Leu	Ala	Leu	Val	Ala
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Tyr	Tyr	Gln	Met	Glu	His	Arg	Ala	Ser	Leu	Arg	Leu	Leu	Leu	Leu	Lys
225				230				235						240	
Cys	Phe	Gly	Ala	Met	Cys	Ser	Leu	Asp	Ala	Ala	Ile	Ile	Ser	Thr	Leu
		245						250					255		
Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
		260						265				270			
Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
	275					280					285				
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu

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      290              295              300
Gly Thr Pro Phe Ala Gln Phe Leu Leu Asn Ile Val Glu Asp Gly Leu
305              310              315              320
Pro Leu Asp Thr Thr Glu Gln Leu Pro Asp Leu Cys Val Asn Leu Leu
      325              330              335
Leu Ala Leu Asn Leu His Leu Pro Ala Ala Asp Gln Asn Val Ile Met
      340              345              350
Ala Ala Leu Ser Lys His Ala Asn Val Lys Ile Phe Ser Glu Lys Leu
      355              360              365
Leu Leu Leu Leu Asn Arg Gly Asp Asp Pro Val Arg Ile Phe Lys His
      370              375              380
Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe
385              390              395              400
Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala
      405              410              415
Leu Ile Asp Ile Thr Val Arg His Ile Ala Asp Leu Ser Pro Gly Asp
      420              425              430
Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg
      435              440              445
Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu
      450              455              460
Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro
465              470              475              480
Arg Pro Leu His Pro Ala Leu Gln Leu Val Ile Asp Ser Ala Phe Gly
      485              490              495
Gly Arg Ser Val
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&lt;210&gt; 3081

&lt;211&gt; 1902

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3081

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420
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480
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 660  
 gacatcaacc agctgaccga attcttctcg tacgagcatt tctacgtcat ctactgcaag  
 720  
 ttctgggagc tggacacgga ccacgacctg ctcatcgacg cggacgacct ggcgcggcac  
 780  
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 840  
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 900  
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 1260  
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 1380  
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 1740  
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 1800  
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 1860  
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 1902

&lt;210&gt; 3082

&lt;211&gt; 414

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3082

Met Asp Asp Met Gly Leu Val Ala Lys Ala Cys Gly Cys Pro Leu Tyr  
 1 5 10 15  
 Trp Lys Gly Pro Leu Phe Tyr Gly Ala Gly Gly Glu Arg Thr Gly Ser

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                20                25                30
Val Ser Val His Lys Phe Val Ala Met Trp Arg Lys Ile Leu Gln Asn
                35                40                45
Cys His Asp Asp Ala Ala Lys Phe Val His Leu Leu Met Ser Pro Gly
                50                55                60
Cys Asn Tyr Leu Val Gln Glu Asp Phe Val Pro Phe Leu Gln Asp Val
65                70                75                80
Val Asn Thr His Pro Gly Leu Ser Phe Leu Lys Glu Ala Ser Glu Phe
                85                90                95
His Ser Arg Tyr Ile Thr Thr Val Ile Gln Arg Ile Phe Tyr Ala Val
                100                105                110
Asn Arg Ser Trp Ser Gly Arg Ile Thr Cys Ala Glu Leu Arg Arg Ser
                115                120                125
Ser Phe Leu Gln Asn Val Ala Leu Leu Glu Glu Glu Ala Asp Ile Asn
                130                135                140
Gln Leu Thr Glu Phe Phe Ser Tyr Glu His Phe Tyr Val Ile Tyr Cys
145                150                155                160
Lys Phe Trp Glu Leu Asp Thr Asp His Asp Leu Leu Ile Asp Ala Asp
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Asp Leu Ala Arg His Asn Asp His Ala Leu Ser Thr Lys Met Ile Asp
                180                185                190
Arg Ile Phe Ser Gly Ala Val Thr Arg Gly Arg Lys Val Gln Lys Glu
                195                200                205
Gly Lys Ile Ser Tyr Ala Asp Phe Val Trp Phe Leu Ile Ser Glu Glu
                210                215                220
Asp Lys Lys Thr Pro Thr Ser Ile Glu Tyr Trp Phe Arg Cys Met Asp
225                230                235                240
Leu Asp Gly Asp Gly Ala Leu Ser Met Phe Glu Leu Glu Tyr Phe Tyr
                245                250                255
Glu Glu Gln Cys Arg Arg Leu Asp Ser Met Ala Ile Glu Ala Leu Pro
                260                265                270
Phe Gln Asp Cys Leu Cys Gln Met Leu Asp Leu Val Lys Pro Arg Thr
                275                280                285
Glu Gly Lys Ile Thr Leu Gln Asp Leu Lys Arg Cys Lys Leu Ala Asn
                290                295                300
Val Phe Phe Asp Thr Phe Phe Asn Ile Glu Lys Tyr Leu Asp His Glu
305                310                315                320
Gln Lys Glu Gln Ile Ser Leu Leu Arg Asp Gly Asp Ser Gly Gly Pro
                325                330                335
Glu Leu Ser Asp Trp Glu Lys Tyr Ala Ala Glu Glu Tyr Asp Ile Leu
                340                345                350
Val Ala Glu Thr Val Gly Glu Pro Trp Glu Asp Gly Phe Glu Ala
                355                360                365
Glu Leu Ser Pro Val Glu Gln Lys Leu Ser Ala Leu Arg Ser Pro Leu
                370                375                380
Ala Gln Arg Pro Phe Phe Glu Ala Pro Ser Pro Leu Gly Ala Val Asp
385                390                395                400
Leu Tyr Glu Tyr Ala Cys Gly Asp Glu Asp Leu Glu Pro Leu
                405                410

```

&lt;210&gt; 3083

&lt;211&gt; 610

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 3083

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 60  
 agggggccac cctgtgaggt gtacattgcc gtcctgcaga gatccaggct gcacggggcg  
 120  
 gactgggcag gccggggccc ggcactggtg ggtgacagtc atacttcgtg gagcccagcg  
 180  
 agcatcccgg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg  
 240  
 cgggtcaatc tgcctagggc cctgtccatg ccccccgtgg ctggcacccg gtgccaatgca  
 300  
 tacgaccggg aggtccacct gcgttgtgag ctctcaccgg gctactacct ggctgtcccc  
 360  
 agcaccttcc tgaaggacgc gccaggggag ttcctgctcc gagtcttctc taccgggcga  
 420  
 gtctccctta ggtgagagga accgcgcagt gctgctggct ctccgaggcc acaggccctt  
 480  
 ccaaggcagg atttgggcac tttccctctg tggttggcag gtgtccatgt ggggaactgag  
 540  
 gccaccggga acctgctgcc agcgccctcc catgtttgtc ttcttggcag cgccatcagg  
 600  
 gcagtggcca  
 610

&lt;210&gt; 3084

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3084

Xaa	Arg	Pro	Ser	Cys	Trp	Glu	Pro	Val	Arg	Pro	Ser	Gly	Ser	Ser	His
1				5					10					15	
Leu	Ser	Trp	His	Arg	Gly	Pro	Pro	Cys	Glu	Val	Tyr	Ile	Ala	Val	Leu
			20					25					30		
Gln	Arg	Ser	Arg	Leu	His	Ala	Ala	Asp	Trp	Ala	Gly	Arg	Ala	Arg	Ala
			35				40					45			
Leu	Val	Gly	Asp	Ser	His	Thr	Ser	Trp	Ser	Pro	Ala	Ser	Ile	Pro	Gly
	50				55					60					
Lys	His	Tyr	Gln	Ala	Val	Gly	Leu	His	Leu	Trp	Lys	Val	Glu	Lys	Arg
65				70					75					80	
Arg	Val	Asn	Leu	Pro	Arg	Val	Leu	Ser	Met	Pro	Pro	Val	Ala	Gly	Thr
			85					90					95		
Ala	Cys	His	Ala	Tyr	Asp	Arg	Glu	Val	His	Leu	Arg	Cys	Glu	Leu	Ser
			100				105						110		
Pro	Gly	Tyr	Tyr	Leu	Ala	Val	Pro	Ser	Thr	Phe	Leu	Lys	Asp	Ala	Pro
		115				120					125				
Gly	Glu	Phe	Leu	Leu	Arg	Val	Phe	Ser	Thr	Gly	Arg	Val	Ser	Leu	Arg
	130					135					140				

&lt;210&gt; 3085

&lt;211&gt; 1080

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3085

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 cttctccaat aagaagatat tcagatattg tagtaccctcg cttgttaatg gcagccattt  
 120  
 caaaagataa gaaaatggaa attaagggaa atctgttcag caacaaagat cttgaggaat  
 180  
 tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagtctactg  
 240  
 agctcttcca gtgcatgtac ttcaaagaca aagaccctgc caccgaggag cgttgcatat  
 300  
 ctgacggagt tatttattca attagaacaa atgggtgtgct tctatttata ccaagggttg  
 360  
 ggattaaagg tgctgcttat ctaaaaata aagatggttt agtcattctca tgtggcccg  
 420  
 atagctgttc tgaatggaaa ccaggatccc ttcaacgatt tcaaaacaaa attacctcta  
 480  
 ctacaacaga tggggaatct gttacgttcc atttgtttga ccatgtaacc gtaagaatat  
 540  
 ccatacaggc ctcacgttgc cattctgata caatcagact tgaaataatt agtaacaaac  
 600  
 catacaagat accaaatata gaacttattc atcagagttc ccccttgctg aagagtgagt  
 660  
 tagtgaaaga agtaactaaa tctgtggaag aagctcagct tgcccaagaa gtcaaagtaa  
 720  
 acatcattca ggaggaatat caagaatatc gccaaacaaa gggaaggagc ctatacacac  
 780  
 ttctagagga gatacgggac ctagctctcc tggatgtttc aaacaattat ggaatatgag  
 840  
 aggctcttac ttcactaaga gctgtcatat gtgaatgttt tacagtcttt tcaaacttaa  
 900  
 catttaatgt gtgtcactca gtgctctagt cgatcaggac tgggtagcta tttcgcatat  
 960  
 atgtanaatg ttctcagccg ggcacgggtg ctacgcctg taacccagc actttgggag  
 1020  
 gctgaggcgg gcggatcacg aggtcaggag attgagacca tcttggttaa cacggtgaaa  
 1080

&lt;210&gt; 3086

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3086

Met	Cys	Val	Thr	Gln	Cys	Ser	Ser	Arg	Ser	Gly	Leu	Gly	Ser	Tyr	Phe
1				5				10						15	
Ala	Tyr	Met	Xaa	Asn	Val	Leu	Ser	Arg	Ala	Arg	Trp	Leu	Thr	Pro	Val
			20					25						30	
Thr	Pro	Ala	Leu	Trp	Glu	Ala	Glu	Ala	Gly	Gly	Ser	Arg	Gly	Gln	Glu
			35					40					45		
Ile	Glu	Thr	Ile	Leu	Ala	Asn	Thr	Val	Lys						
			50					55							

<210> 3087  
<211> 2329  
<212> DNA  
<213> Homo sapiens

<400> 3087  
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120  
gtggagggtgg agccgcccc agatcggcca gtccgagcgt gccggacaca gcagccggaa  
180  
atggagcgca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa  
240  
gatcccatg gattttttgc ttttcctgtc acggatgcaa ttgctcctgg atattcaatg  
300  
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360  
aagtcagtta cggaatttaa ggagatttc aagctgatgt gtgataatgc aatgacatac  
420  
aataggccag ataccgtgta ctacaagttg gcgaagaaga tccttcacgc aggccttaag  
480  
atgatgagca aacaggcagc tcttttgggc aatgaagata cagctgttga ggaacctgtc  
540  
cctgaagttg taccagtaca agtagaaact gccaaagaaat ccaaaaagcc gagtagagaa  
600  
gttatcagct gcatgtttga gcctgaaggg aatgcctgca gcttgacgga cagtaccgca  
660  
gaggagcacg tgctggcgct ggtggagcac gcagctgacg aagctcggga caggatcaac  
720  
cggttcctcc caggcggcaa gatgggctat ctgaagagga acggggacgg gagcctgctc  
780  
tacagcgtgg tcaacacggc cgagccgaac gctgatgagg aggagaccca cccggtgact  
840  
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900  
gaagaaacaa agtcaccttt ctctccagtg ccactactgc gctttcgatg cagaataatt  
960  
cagtatttgg cgacttgaag tcggacgaga tggagctgct ctactcagcc tacggagatg  
1020  
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1080  
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1140  
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 2280  
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 2329

&lt;210&gt; 3088

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3088

Xaa	Glu	Lys	His	Leu	Asp	Asp	Glu	Glu	Arg	Arg	Lys	Arg	Lys	Glu	Glu
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Lys	Lys	Arg	Lys	Arg	Glu	Arg	Glu	His	Cys	Asp	Thr	Glu	Gly	Glu	Ala
			20					25					30		
Asp	Asp	Phe	Asp	Pro	Gly	Lys	Lys	Val	Glu	Val	Glu	Pro	Pro	Pro	Asp
		35					40					45			
Arg	Pro	Val	Arg	Ala	Cys	Arg	Thr	Gln	Gln	Pro	Glu	Met	Glu	Arg	Thr
		50				55					60				
His	Ile	Gln	Gln	Leu	Leu	Glu	His	Phe	Leu	Arg	Gln	Leu	Gln	Arg	Lys
				70					75					80	
Asp	Pro	His	Gly	Phe	Phe	Ala	Phe	Pro	Val	Thr	Asp	Ala	Ile	Ala	Pro
			85					90					95		
Gly	Tyr	Ser	Met	Ile	Ile	Lys	His	Pro	Met	Asp	Phe	Gly	Thr	Met	Lys
			100				105					110			
Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
			115				120					125			
Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp

130	135	140
Thr Val Tyr Tyr Lys Leu Ala Lys Lys Ile Leu His Ala Gly Phe Lys		
145	150	155
Met Met Ser Lys Gln Ala Ala Leu Leu Gly Asn Glu Asp Thr Ala Val		160
	165	170
Glu Glu Pro Val Pro Glu Val Val Pro Val Gln Val Glu Thr Ala Lys		175
	180	185
Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro		190
	195	200
Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val		205
	210	215
Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn		220
225	230	235
Arg Phe Leu Pro Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp		240
	245	250
Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp		255
	260	265
Glu Glu Glu Thr His Pro Val Thr		270
	275	280

&lt;210&gt; 3089

&lt;211&gt; 722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3089

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180
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240
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300
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360
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420
aaacataaaa attctcaatt agataaaaat agtgaagttt atcaggaagt tcaagctatg
480
tttgatacac ttggtatacc caagtcaaca acttctgaca ttccgcatat gctaaaccaa
540
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600
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720
ca
722

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&lt;210&gt; 3090

<211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 3090  
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 Thr Ser Met Glu Gly Asp Val Leu Asp Thr Leu Glu Ala Leu Gly Tyr  
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 Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly  
 35 40 45  
 Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser  
 50 55 60  
 Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly  
 65 70 75 80  
 Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys  
 85 90 95  
 Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu  
 100 105 110  
 Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Leu Phe Leu Ser  
 115 120 125  
 Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn  
 130 135 140  
 Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met  
 145 150 155 160  
 Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His  
 165 170 175  
 Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val  
 180 185 190  
 Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser  
 195 200 205  
 Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu  
 210 215 220  
 Tyr Glu Cys Arg Arg Arg Met Leu Met Lys Arg Leu Asp Val Thr Val  
 225 230 235 240

<210> 3091  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 333

<210> 3092  
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 <212> PRT  
 <213> Homo sapiens

<400> 3092  
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 Lys Gly Asp Thr Lys Arg Ser Pro Gln Gly Arg Val Gly Gly Ala Gly  
                   20                  25                  30  
 Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln  
           35                  40                  45  
 Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly  
   50                  55                  60  
 Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln  
 65                  70                  75                  80  
 Ala Lys Met Val Trp Gln Arg Gly Glu Gln Leu Leu Pro Arg Ala Ser  
                   85                  90                  95  
 Phe Pro Ser Ala Pro Phe Thr Arg  
                   100

<210> 3093  
 <211> 720  
 <212> DNA  
 <213> Homo sapiens

<400> 3093  
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<211> 179  
 <212> PRT  
 <213> Homo sapiens

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 100 105 110  
 Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln  
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<210> 3097  
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 <212> DNA  
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<210> 3098

<211> 1359

<212> PRT

<213> Homo sapiens

<400> 3098

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Asp	Gly	Arg	Ala	Pro	Gly	Leu	Arg	Gly	Leu	Gly	Ala	Ala	Pro	His	Cys
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Pro	Ala	Gly	Leu	Gly	Pro	Gly	Ala	Met	Ser	Gly	Gly	Gly	Gly	Gly	Gly

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Tyr Ile Gln Ala Ser Lys Ala Arg Asp Gly Ala Ser Pro Phe Ile Ser
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Ser Thr Thr Glu Gly Glu Asn Phe Glu Gln Thr Pro Leu Arg Arg Thr
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Phe Lys Ser Lys Val Leu Ala Arg Tyr Pro Glu Asn Val Glu Trp Asn
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Pro Phe Asp Gln Asp Ala Val Gly Met Leu Cys Met Pro Lys Gly Leu
      165         170         175
Ala Phe Lys Thr Gln Ala Asp Pro Arg Glu Pro Gln Phe His Ala Phe
      180         185         190
Ile Ile Thr Arg Glu Asp Gly Ser Arg Thr Phe Gly Phe Ala Leu Thr
      195         200         205
Phe Tyr Glu Glu Val Thr Ser Lys Gln Ile Cys Ser Ala Met Gln Thr
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Leu Tyr His Met His Asn Ala Glu Tyr Asp Val Leu His Ala Pro Pro
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Ala Asp Asp Arg Asp Gln Ser Ser Met Glu Asp Gly Glu Asp Thr Pro
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Val Thr Lys Leu Gln Arg Phe Asn Ser Tyr Asp Ile Ser Arg Asp Thr
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Leu Tyr Val Ser Lys Cys Ile Cys Leu Ile Thr Pro Met Ser Phe Met
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Lys Ala Cys Arg Ser Val Pro Gly Gln Leu His Gln Ala Val Thr Ser
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Pro Gln Pro Pro Pro Leu Pro Leu Glu Ser Tyr Ile Tyr Asn Val Leu
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Tyr Glu Val Pro Leu Pro Pro Pro Gly Arg Ser Leu Lys Phe Ser Gly
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Val Tyr Trp Pro Ile Ile Cys Gln Arg Pro Ser Thr Asn Glu Leu Pro
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Leu Phe Asp Phe Pro Val Lys Glu Val Phe Glu Leu Leu Gly Val Glu
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Asn Val Phe Gln Leu Phe Thr Cys Ala Leu Leu Glu Phe Gln Ile Leu
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Leu Tyr Ser Gln His Tyr Gln Arg Leu Met Thr Val Ala Glu Thr Ile
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Thr Ala Leu Met Phe Pro Phe Gln Trp Gln His Val Tyr Val Pro Ile
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Leu Pro Ala Ser Leu Leu His Phe Leu Asp Ala Pro Val Pro Tyr Leu
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Pro Gln Glu Ala Asn Leu Cys Phe Val Asp Ile Asp Asn His Phe Ile
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Glu Leu Pro Glu Asp Leu Pro Gln Phe Pro Asn Lys Leu Glu Phe Val
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Gln Glu Val Ser Glu Ile Leu Met Ala Phe Gly Ile Pro Pro Glu Gly
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Asn Leu His Cys Ser Glu Ser Ala Ser Lys Leu Lys Arg Leu Arg Ala

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Phe Asn Ala Val Asp Tyr Phe Cys Phe Thr Asn Val Phe Thr Thr Ile		1005
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&lt;210&gt; 3099

&lt;211&gt; 1001

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3099

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&lt;210&gt; 3100

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3100

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Gly Lys Ile Met Cys Lys Ile Thr Ser Ala Leu Tyr Thr Leu Asn Phe

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Ile Ile Cys Phe Cys Val Trp Met Ala Ala Ile Leu Leu Ser Ile Pro
      100              105              110
Gln Leu Val Phe Tyr Thr Val Asn Asp Asn Ala Arg Cys Ile Pro Ile
      115              120              125
Phe Pro Arg Tyr Leu Gly Thr Ser Met Lys Ala Leu Ile His Met Leu
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&lt;210&gt; 3101

&lt;211&gt; 2623

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3101

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&lt;211&gt; 1228

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3103

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 Pro Gly Gly Arg Leu Arg Thr Arg Arg Pro Ala Thr Ile Leu Ser Val  
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aacc  
4924

&lt;210&gt; 3106

&lt;211&gt; 1366

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3106

Met	Leu	Ala	Val	Gly	Pro	Ala	Met	Asp	Arg	Asp	Tyr	Pro	Gln	His	Glu
1				5				10						15	
Pro	Pro	Pro	Ala	Gly	Ser	Leu	Leu	Tyr	Ser	Pro	Pro	Pro	Leu	Gln	Ser
			20					25					30		
Ala	Met	Leu	His	Cys	Pro	Tyr	Trp	Asn	Thr	Phe	Ser	Leu	Pro	Pro	Tyr
			35				40					45			
Pro	Ala	Phe	Ser	Ser	Asp	Ser	Arg	Pro	Phe	Met	Ser	Ser	Ala	Ser	Phe
		50				55				60					
Leu	Gly	Ser	Gln	Pro	Cys	Pro	Asp	Thr	Ser	Tyr	Ala	Pro	Val	Ala	Thr
65					70					75				80	
Ala	Ser	Ser	Leu	Pro	Pro	Lys	Thr	Cys	Asp	Phe	Ala	Gln	Asp	Ser	Ser



```

      85              90              95
Tyr Phe Glu Asp Phe Ser Asn Ile Ser Ile Phe Ser Ser Ser Val Asp
      100              105              110
Ser Leu Ser Asp Ile Val Asp Thr Pro Asp Phe Leu Pro Ala Asp Ser
      115              120              125
Leu Asn Gln Val Ser Thr Ile Trp Asp Asp Asn Pro Ala Pro Ser Thr
      130              135              140
His Asp Lys Leu Phe Gln Leu Ser Arg Pro Phe Ala Gly Phe Glu Asp
      145              150              155              160
Phe Leu Pro Ser His Ser Thr Pro Leu Leu Val Ser Tyr Gln Glu Gln
      165              170              175
Ser Val Gln Ser Gln Pro Glu Glu Glu Asp Glu Ala Glu Glu Glu Glu
      180              185              190
Ala Glu Glu Leu Gly His Thr Glu Thr Tyr Ala Asp Tyr Val Pro Ser
      195              200              205
Lys Ser Lys Ile Gly Lys Gln His Pro Asp Arg Val Val Glu Thr Ser
      210              215              220
Thr Leu Ser Ser Val Pro Pro Asp Ile Thr Tyr Thr Leu Ala Leu
      225              230              235              240
Pro Ser Asp Ser Gly Ala Leu Ser Ala Leu Gln Leu Glu Ala Ile Thr
      245              250              255
Tyr Ala Cys Gln Gln His Glu Val Leu Leu Pro Ser Gly Gln Arg Ala
      260              265              270
Gly Phe Leu Ile Gly Asp Gly Ala Gly Val Gly Lys Gly Arg Thr Val
      275              280              285
Ala Gly Val Ile Leu Glu Asn His Leu Arg Gly Arg Lys Lys Ala Leu
      290              295              300
Trp Phe Ser Val Ser Asn Asp Leu Lys Tyr Asp Ala Glu Arg Asp Leu
      305              310              315              320
Arg Asp Ile Glu Ala Thr Gly Ile Ala Val His Ala Leu Ser Lys Ile
      325              330              335
Lys Tyr Gly Asp Thr Thr Thr Ser Glu Gly Val Leu Phe Ala Thr Tyr
      340              345              350
Ser Ala Leu Ile Gly Glu Ser Gln Ala Gly Gly Gln His Arg Thr Arg
      355              360              365
Leu Arg Gln Ile Leu Asp Trp Cys Gly Glu Ala Phe Glu Gly Val Ile
      370              375              380
Val Phe Asp Glu Cys His Lys Ala Lys Asn Ala Gly Ser Thr Lys Met
      385              390              395              400
Gly Lys Ala Val Leu Asp Leu Gln Asn Lys Leu Pro Leu Ala Arg Val
      405              410              415
Val Tyr Ala Ser Ala Thr Gly Thr Ser Glu Pro Arg Asn Met Ile Tyr
      420              425              430
Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe
      435              440              445
Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu
      450              455              460
Ile Val Ala Met Asp Met Lys Val Ser Gly Met Tyr Ile Ala Arg Gln
      465              470              475              480
Leu Ser Phe Ser Gly Val Thr Phe Arg Ile Glu Glu Ile Pro Leu Ala
      485              490              495
Pro Ala Phe Glu Cys Val Tyr Asn Arg Ala Ala Leu Leu Trp Ala Glu
      500              505              510
Ala Leu Asn Val Phe Gln Gln Ala Ala Asp Trp Ile Gly Leu Glu Ser

```

	515						520					525				
Arg	Lys	Ser	Leu	Trp	Gly	Gln	Phe	Trp	Ser	Ala	His	Gln	Arg	Phe	Phe	
	530					535					540					
Lys	Tyr	Leu	Cys	Ile	Ala	Ala	Lys	Val	Arg	Arg	Leu	Val	Glu	Leu	Ala	
545					550					555					560	
Arg	Glu	Glu	Leu	Ala	Arg	Asp	Lys	Cys	Val	Val	Ile	Gly	Leu	Gln	Ser	
				565					570					575		
Thr	Gly	Glu	Ala	Arg	Thr	Arg	Glu	Val	Leu	Gly	Glu	Asn	Asp	Gly	His	
			580					585					590			
Leu	Asn	Cys	Phe	Val	Ser	Ala	Ala	Glu	Gly	Val	Phe	Leu	Ser	Leu	Ile	
		595					600					605				
Gln	Lys	His	Phe	Pro	Ser	Thr	Lys	Arg	Lys	Arg	Asp	Arg	Gly	Ala	Gly	
	610					615					620					
Ser	Lys	Arg	Lys	Arg	Arg	Pro	Arg	Gly	Arg	Gly	Ala	Lys	Ala	Pro	Arg	
625					630					635					640	
Leu	Ala	Cys	Glu	Thr	Ala	Gly	Val	Ile	Arg	Ile	Ser	Asp	Asp	Ser	Ser	
				645					650					655		
Thr	Glu	Ser	Asp	Pro	Gly	Leu	Asp	Ser	Asp	Phe	Asn	Ser	Ser	Pro	Glu	
			660					665					670			
Ser	Leu	Val	Asp	Asp	Asp	Val	Val	Ile	Val	Asp	Ala	Val	Gly	Leu	Pro	
		675					680					685				
Ser	Asp	Asp	Arg	Gly	Ser	Leu	Cys	Leu	Leu	Gln	Arg	Asp	Pro	His	Gly	
	690					695					700					
Pro	Gly	Val	Leu	Glu	Arg	Val	Glu	Arg	Leu	Lys	Gln	Asp	Leu	Leu	Asp	
705					710					715					720	
Lys	Val	Arg	Arg	Leu	Gly	Arg	Glu	Leu	Pro	Val	Asn	Thr	Leu	Asp	Glu	
				725					730					735		
Leu	Ile	Asp	Gln	Leu	Gly	Gly	Pro	Gln	Arg	Val	Ala	Glu	Met	Thr	Gly	
			740					745					750			
Arg	Lys	Gly	Arg	Val	Val	Ser	Arg	Pro	Asp	Gly	Thr	Val	Ala	Phe	Glu	
		755					760					765				
Ser	Arg	Ala	Glu	Gln	Gly	Leu	Ser	Ile	Asp	His	Val	Asn	Leu	Arg	Glu	
		770				775					780					
Lys	Gln	Arg	Phe	Met	Ser	Gly	Glu	Lys	Leu	Val	Ala	Ile	Ile	Ser	Glu	
785					790					795					800	
Ala	Ser	Ser	Ser	Gly	Val	Ser	Leu	Gln	Ala	Asp	Arg	Arg	Val	Gln	Asn	
				805					810					815		
Gln	Arg	Arg	Arg	Val	His	Met	Thr	Leu	Glu	Leu	Pro	Trp	Ser	Ala	Asp	
			820					825					830			
Arg	Ala	Ile	Gln	Gln	Phe	Gly	Arg	Thr	His	Arg	Ser	Asn	Gln	Val	Ser	
		835					840					845				
Ala	Pro	Glu	Tyr	Val	Phe	Leu	Ile	Ser	Glu	Leu	Ala	Gly	Glu	Arg	Arg	
		850				855					860					
Phe	Ala	Ser	Ile	Val	Ala	Lys	Arg	Leu	Glu	Ser	Leu	Gly	Ala	Leu	Thr	
865					870					875	</					

945                      950                      955                      960  
 Lys Asp Cys Ser Ile Thr Lys Phe Leu Asn Arg Ile Leu Gly Leu Glu  
                                  965                      970                      975  
 Val His Lys Gln Asn Ala Leu Phe Gln Tyr Phe Ser Asp Thr Phe Asp  
                                  980                      985                      990  
 His Leu Ile Glu Met Asp Lys Arg Glu Gly Lys Tyr Asp Met Gly Ile  
                                  995                      1000                      1005  
 Leu Asp Leu Ala Pro Gly Ile Glu Glu Ile Tyr Glu Glu Ser Gln Gln  
                                  1010                      1015                      1020  
 Val Phe Leu Ala Pro Gly His Pro Gln Asp Gly Gln Val Val Phe Tyr  
 1025                      1030                      1035                      1040  
 Lys Ile Ser Val Asp Arg Gly Leu Lys Trp Glu Asp Ala Phe Ala Lys  
                                  1045                      1050                      1055  
 Ser Leu Ala Leu Thr Gly Pro Tyr Asp Gly Phe Tyr Leu Ser Tyr Lys  
                                  1060                      1065                      1070  
 Val Arg Gly Asn Lys Pro Ser Cys Leu Leu Ala Glu Gln Asn Arg Gly  
                                  1075                      1080                      1085  
 Gln Phe Thr Val Tyr Lys Pro Asn Ile Gly Arg Gln Ser Gln Leu  
                                  1090                      1095                      1100  
 Glu Ala Leu Asp Ser Leu Arg Arg Lys Phe His Arg Val Thr Ala Glu  
 1105                      1110                      1115                      1120  
 Glu Ala Lys Glu Pro Trp Glu Ser Gly Tyr Ala Leu Ser Leu Thr His  
                                  1125                      1130                      1135  
 Cys Ser His Ser Ala Trp Asn Arg His Cys Arg Leu Ala Gln Glu Gly  
                                  1140                      1145                      1150  
 Lys Asp Cys Leu Gln Gly Leu Arg Leu Arg His His Tyr Met Leu Cys  
                                  1155                      1160                      1165  
 Gly Ala Leu Leu Arg Val Trp Gly Arg Ile Ala Ala Val Met Ala Asp  
                                  1170                      1175                      1180  
 Val Ser Ser Ser Ser Tyr Leu Gln Ile Val Arg Leu Lys Thr Lys Asp  
 1185                      1190                      1195                      1200  
 Arg Lys Lys Gln Val Gly Ile Lys Ile Pro Glu Gly Cys Val Arg Arg  
                                  1205                      1210                      1215  
 Val Leu Gln Glu Leu Arg Leu Met Asp Ala Asp Val Lys Arg Arg Gln  
                                  1220                      1225                      1230  
 Ala Pro Ala Leu Gly Cys Pro Ala Pro Pro Ala Pro Arg Pro Leu Ala  
                                  1235                      1240                      1245  
 Leu Pro Cys Gly Pro Gly Glu Val Leu Asp Leu Thr Tyr Ser Pro Pro  
                                  1250                      1255                      1260  
 Ala Glu Ala Phe Pro Pro Pro His Phe Ser Phe Pro Ala Pro Leu  
 1265                      1270                      1275                      1280  
 Ser Leu Asp Ala Gly Pro Gly Val Val Pro Leu Gly Thr Pro Asp Ala  
                                  1285                      1290                      1295  
 Gln Ala Asp Pro Ala Ala Leu Ala His Gln Gly Cys Asp Ile Asn Phe  
                                  1300                      1305                      1310  
 Lys Glu Val Leu Glu Asp Met Leu Arg Ser Leu His Ala Gly Pro Pro  
                                  1315                      1320                      1325  
 Ser Glu Gly Ala Leu Gly Glu Gly Ala Gly Ala Gly Gly Ala Ala Gly  
                                  1330                      1335                      1340  
 Gly Gly Pro Glu Arg Gln Ser Val Ile Gln Phe Ser Pro Pro Phe Pro  
 1345                      1350                      1355                      1360  
 Gly Ala Gln Ala Pro Leu  
                                  1365

&lt;210&gt; 3107

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3107

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120  
caccagtttc tgatggagct gaagcaggaa gccctcacct ttgccaggaa ctgggggggc  
180  
gactatatcc tgtttgcaga cacagacaac attctgacca acaatcagac tctgcggcct  
240  
ctcatggggc aggggcttcc agtgggtggc ccaatgctgg actcccagac ctactactcc  
300  
aacttctggc gtgggatcac ccccagggc tactaccgcc gcacagccga gtacttcccc  
360  
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 1800  
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 1860  
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 1920  
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 1980  
 gtaaagcagg acccttcag acatgttgcc cagcacacag taggccctca ataaaagcca  
 2040  
 tttgcacttt aaatatatat atgtatgtat atatatgtat atatatatat atatatatat  
 2100  
 gt  
 2102

&lt;210&gt; 3108

&lt;211&gt; 517

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3108

Met	Leu	Gln	Glu	Trp	Leu	Ala	Ala	Val	Gly	Asp	Asp	Tyr	Ala	Ala	Val
1			5						10					15	
Val	Trp	Arg	Pro	Glu	Gly	Glu	Pro	Arg	Phe	Tyr	Pro	Asp	Glu	Glu	Gly
		20						25				30			
Pro	Lys	His	Trp	Thr	Lys	Glu	Arg	His	Gln	Phe	Leu	Met	Glu	Leu	Lys
		35				40					45				
Gln	Glu	Ala	Leu	Thr	Phe	Ala	Arg	Asn	Trp	Gly	Ala	Asp	Tyr	Ile	Leu
	50				55					60					
Phe	Ala	Asp	Thr	Asp	Asn	Ile	Leu	Thr	Asn	Asn	Gln	Thr	Leu	Arg	Leu
65					70				75					80	
Leu	Met	Gly	Gln	Gly	Leu	Pro	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Gln
			85					90					95		
Thr	Tyr	Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Ile	Thr	Pro	Gln	Gly	Tyr	Tyr
			100					105					110		
Arg	Arg	Thr	Ala	Glu	Tyr	Phe	Pro	Thr	Lys	Asn	Arg	Gln	Arg	Arg	Gly
		115					120					125			
Cys	Phe	Arg	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ala	Ser	Leu	Arg
	130					135					140				
Ala	Glu	Gly	Ala	Asp	Gln	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asn	Tyr
145				150					155					160	
Thr	Trp	Pro	Phe	Asp	Asp	Ile	Ile	Val	Phe	Ala	Tyr	Ala	Cys	Gln	Ala
				165				170					175		
Ala	Gly	Val	Ser	Val	His	Val	Cys	Asn	Glu	His	Arg	Tyr	Gly	Tyr	Met

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      180      185      190
Asn Val Pro Val Lys Ser His Gln Gly Leu Glu Asp Glu Arg Val Asn
      195      200      205
Phe Ile His Leu Ile Leu Glu Ala Leu Val Asp Gly Pro Arg Met Gln
      210      215      220
Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly
225      230      235
Phe Asp Glu Val Phe Val Ile Ser Leu Ala Arg Arg Pro Asp Arg Arg
      245      250      255
Glu Arg Met Leu Ala Ser Leu Trp Glu Met Glu Ile Ser Gly Arg Val
      260      265      270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn
      275      280      285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg
      290      295      300
Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile
305      310      315
Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu
      325      330      335
Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu
      340      345      350
Met Glu Asp Val Glu Ala Glu Lys Leu Ser Trp Asp Leu Ile Tyr Leu
      355      360      365
Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu
      370      375      380
Pro Gly Leu Val Val Ala Gly Tyr Ser Tyr Trp Thr Leu Ala Tyr Ala
385      390      395
Leu Arg Leu Ala Gly Ala Arg Lys Leu Leu Ala Ser Gln Pro Leu Arg
      405      410      415
Arg Met Leu Pro Val Asp Glu Phe Leu Pro Ile Met Phe Asp Gln His
      420      425      430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala
      435      440      445
Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp
      450      455      460
Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp
465      470      475
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser
      485      490      495
Pro Arg Leu Asp Leu Thr Gly Ser Ser Gly His Ser Leu Gln Pro Gln
      500      505      510
Pro Arg Asp Glu Leu
      515

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&lt;210&gt; 3109

&lt;211&gt; 959

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3109

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60

gcagcgcacc tgccctttgt taatacaaca tcaccttgct ccatatccta ccaaagatcc

120

cctggaatct ggaaggatct acttcactcg atccctccac agtcagcagg acaactttat  
 180  
 tccagtctgg gggacgcctt acccgagga gctgccaatc actgcagacg aagatgctca  
 240  
 cgtaatcttt gcagtcgagc cgttctgccca ggcgatgta gggccgtcc ctggtgaagg  
 300  
 tgattccctg cagactcgt cttcatcctg tgcgccatgt acaagcgagg gctggtgcag  
 360  
 gtctggtctt tagagcagcc cgaatggcac tgcaaaatag acgagggctc agccgggctg  
 420  
 gtggcctcgt gctggagccc ggacgggagc cacattctca acaccacgga attccatctg  
 480  
 cggataaccg tctggtcctt gtgcacaaaa tccgtgtctt acatcaaata cccgaaagct  
 540  
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 600  
 gactgcaaag attacgtgag catcttcgtc tgcagtgatt ggcagctcct gcggcatttt  
 660  
 gatacggaca cccaggatct cacagggatt gagtgggccc caaacggctg tgtgctggca  
 720  
 gtgtgggaca cctgcttggg gtacaagatt ctgctgtact cattggatgg ccggttgttg  
 780  
 tccacgtaca gcgctntacg agtggctcnn cttgggcatca agtctgtggc ctggagcccc  
 840  
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 900  
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 959

<210> 3110

<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

Met	Tyr	Lys	Arg	Gly	Leu	Val	Gln	Val	Trp	Ser	Leu	Glu	Gln	Pro	Glu
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Trp	His	Cys	Lys	Ile	Asp	Glu	Gly	Ser	Ala	Gly	Leu	Val	Ala	Ser	Cys
			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
			50				55				60				
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65					70					75				80	
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
				85					90					95	
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100					105					110		
Gln	Asp	Leu	Thr	Gly	Ile	Glu	Trp	Ala	Pro	Asn	Gly	Cys	Val	Leu	Ala
			115				120					125			
Val	Trp	Asp	Thr	Cys	Leu	Glu	Trp	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
			130				135				140				
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

145		150		155		160									
Ile	Lys	Ser	Val	Ala	Trp	Ser	Pro	Ser	Ser	Gln	Phe	Leu	Ala	Val	Gly
		165		170		175									
Ser	Tyr	Asp	Gly	Lys	Val	Arg	Ile	Leu	Asn	His	Val	Thr	Trp	Lys	Met
		180		185		190									
Ile	Thr	Glu	Phe	Gly	His	Pro	Cys	Ser	Pro	Ile	Asn	Asp	Ser	Gln	
	195					200						205			

&lt;210&gt; 3111

&lt;211&gt; 1269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3111

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120
aactacagaa tgcacgggtt cagaaagcta ttttaagtta tttacaaata aagtatctaa
180
aactcaaaaa caggctctgt atgctatata tagtttatcc cttcccgaac aaaatttctg
240
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300
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360
agttgaagct gttgggtttt atatagtgtg aactctgata aatattccta ccaggactaa
420
aacacagcac gctttgcggg catggctgac tcacaaaggt tgtaacaaac aagaactact
480
cttcaactga caccatggct cagaggccac cgagaagcac gagtgaactga cagctcctct
540
gcttacaaac gaatgaaacc caaagtggat gtcgttctca cagcactgaa agtgcttcag
600
gactcacact gatccaatac taactttctt ccctatttta cacatatttt tctactgtcc
660
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<210> 3112  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 3112  
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 20 25 30  
 Glu Gly Arg Arg Gly Ala Arg Thr Ala Gly Leu Arg Gly Arg Pro Trp  
 35 40 45  
 Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu  
 50 55 60  
 Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile  
 65 70 75 80  
 Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser  
 85 90 95  
 Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln  
 100 105 110  
 Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser  
 115 120 125  
 Gln Lys Arg Val Asn Asp Pro Glu Cys Asp Trp Glu Gly Glu Leu Ile  
 130 135 140  
 Pro Tyr Gln Glu Thr Gly Ser  
 145 150

<210> 3113  
 <211> 631  
 <212> DNA  
 <213> Homo sapiens

<400> 3113  
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 180  
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 240  
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 300  
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 360  
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 420  
 gattttgaca actgtgcagt ttgtattgaa ggggtacaagc ccaatgacgt tgtccggatc  
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ctgccctgcc ggcattcttt ccacaagtcc tgtgttgacc cctggcttct agaccatcgt  
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<210> 3114  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 3114  
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 20 25 30  
 Ile Val Ala Ile Met Ile Pro Glu Pro Lys Gly Lys Glu Ile Val Ser  
 35 40 45  
 Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr  
 50 55 60  
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser  
 65 70 75 80  
 Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe  
 85 90 95  
 Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln  
 100 105 110  
 Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile  
 115 120 125  
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn  
 130 135 140  
 Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile  
 145 150 155 160  
 Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu  
 165 170 175  
 Leu Asp His Arg Thr Cys Pro Met Cys Lys Met Asn Ile Leu Lys Ala  
 180 185 190  
 Leu Gly Ile Pro Pro Asn Ala Asp Cys Met Asp Asp Phe Ala Thr Asp  
 195 200 205  
 Phe Glu  
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<210> 3115  
 <211> 1366  
 <212> DNA  
 <213> Homo sapiens

<400> 3115  
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 gcagaaaaga tggaaaaaag gacatgtgca ctctgcccc aagatgtcga atataatgtc  
 180

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 420  
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 aatattagac aaagttcatt caattccaga aaaactcatg gatgagacta cttcagaatc  
 780  
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 960  
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 1080  
 aatccacaca tctttagaac tagtcgtctc ctcttggcct cagcagctct tccctgttct  
 1140  
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 1200  
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 1260  
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 1366

<210> 3116

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3116

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			20					25				30			
Leu	Leu	Tyr	Ser	Ser	Gly	Leu	Val	Glu	Cys	Glu	Asp	Gln	Asp	Pro	Leu
			35				40				45				
Asn	Pro	Asp	Arg	Ser	Phe	Asp	Val	Glu	Ser	Val	Lys	Lys	Glu	Ile	Gln

50	55	60
Arg Gly Arg Lys Leu Lys Cys Lys Phe Cys His Lys Arg Gly Ala Thr		
65	70	75
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys		80
	85	90
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile		95
	100	105
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln		110
	115	120
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro		125
	130	135
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr		140
145	150	155
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr		160
	165	170
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser		175
	180	185
		190

&lt;210&gt; 3117

&lt;211&gt; 1373

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3117

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240  
gtgcacctgg ccgtggaatt cttcaacctg acccacctgc cagccaacct cctccagggc  
300  
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360  
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720  
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780  
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840  
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900

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<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

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Ser	Ser	Ile	Ser	Cys	Gln	Pro	Pro	Ala	Glu	Ile	Pro	Gly	Tyr	Leu	Pro
		20						25					30		
Ala	Asp	Thr	Val	His	Leu	Ala	Val	Glu	Phe	Phe	Asn	Leu	Thr	His	Leu
		35					40					45			
Pro	Ala	Asn	Leu	Leu	Gln	Gly	Ala	Ser	Lys	Leu	Gln	Glu	Leu	His	Leu
		50				55					60				
Ser	Ser	Asn	Gly	Leu	Glu	Ser	Leu	Ser	Pro	Glu	Phe	Leu	Arg	Pro	Val
65					70					75				80	
Pro	Gln	Leu	Arg	Val	Leu	Asp	Leu	Thr	Arg	Asn	Ala	Leu	Thr	Gly	Leu
				85					90					95	
Pro	Pro	Gly	Leu	Phe	Gln	Ala	Ser	Ala	Thr	Leu	Asp	Thr	Leu	Val	Leu
		100						105					110		
Lys	Glu	Asn	Gln	Leu	Glu	Val	Leu	Glu	Val	Ser	Trp	Leu	His	Gly	Leu
		115					120					125			
Lys	Ala	Leu	Gly	His	Leu	Asp	Leu	Ser	Gly	Asn	Arg	Leu	Arg	Lys	Leu
		130				135					140				
Pro	Pro	Gly	Leu	Leu	Ala	Asn	Phe	Thr	Leu	Leu	Arg	Thr	Leu	Asp	Leu
145					150						155			160	
Gly	Glu	Asn	Gln	Leu	Glu	Thr	Leu	Pro	Pro	Asp	Leu	Leu	Arg	Gly	Pro
				165					170					175	
Leu	Gln	Leu	Glu	Arg	Leu	His	Leu	Glu	Gly	Asn	Lys	Leu	Gln	Val	Leu
			180					185					190		
Gly	Lys	Asp	Leu	Leu	Leu	Pro	Gln	Pro	Asp	Leu	Arg	Tyr	Leu	Phe	Leu
		195				200						205			
Ser	Gly	Asn	Lys	Leu	Ala	Arg	Val	Ala	Ala	Gly	Ala	Phe	Gln	Gly	Leu
		210				215						220			
Arg	Gln	Leu	Asp	Met	Leu	Asp	Leu	Ser	Asn	Asn	Ser	Leu	Ala	Ser	Val
225					230					235				240	
Pro	Glu	Gly	Leu	Trp	Ala	Ser	Leu	Gly	Gln	Pro	Asn	Trp	Asp	Met	Arg

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                245                250                255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
                260                265                270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
                275                280                285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
                290                295                300
Leu Leu Ala Val Ala Lys Ser Gln
305                310

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&lt;210&gt; 3119

&lt;211&gt; 427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3119

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240
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300
tcttcagcac tgctcccagc tgccaggggtg cctgctgccc ccacctctgt tgcttactat
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420
aacgcgt
427

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&lt;210&gt; 3120

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3120

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Val His Met Val Leu Asn Gln Gln Gly Arg Pro Ser Gly Asp Ala Phe
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Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Gln Arg Cys
20      25      30
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35      40      45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50      55      60
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65      70      75      80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85      90      95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100     105     110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

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115                      120                      125  
 Leu Asn Tyr Thr Ala Tyr Tyr Pro Ser Pro Glu Asp Asn Ala  
 130                      135                      140

<210> 3121  
 <211> 284  
 <212> DNA  
 <213> Homo sapiens

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 120  
 taagaggaac atgaacctgg acggggcagc ttccattgtc cctctcctgc tcctgctaata  
 180  
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 284

<210> 3122  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 3122  
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 Gly Pro Ser Glu Asp Phe Ser Thr Ser Ala Ala Thr Ser Ala Ala Ser  
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 Ser His Val Arg Arg Asn Lys Arg Asn Met Asn Leu Asp Gly Ala Ala  
 35                      40                      45  
 Ser Ile Val Pro Leu Leu Leu Leu Met Asn Lys Ala Ser Pro Glu  
 50                      55                      60  
 Tyr Glu Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Arg  
 65                      70                      75                      80  
 Gly Arg Phe Ser Leu Phe Trp Trp Thr Val Val  
 85                      90

<210> 3123  
 <211> 344  
 <212> DNA  
 <213> Homo sapiens

<400> 3123  
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 180  
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 240

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 344

<210> 3124  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 3124  
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 Lys Gly Glu Glu Pro Asp Ile Ala Val Pro Lys Phe Lys Gln Arg Lys  
 35 40 45  
 Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln  
 50 55 60  
 His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val  
 65 70 75 80  
 Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys  
 85 90

<210> 3125  
 <211> 647  
 <212> DNA  
 <213> Homo sapiens

<400> 3125  
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 300  
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 647

<210> 3126



<211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 3126  
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 Phe Gln Asn Ser Thr Phe Val Cys Phe Thr Asn Cys Pro Ala Asn Leu  
 20 25 30  
 His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr  
 35 40 45  
 His Leu Phe Cys Ser Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly  
 50 55 60  
 Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser  
 65 70 75 80  
 Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg  
 85 90 95  
 Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe  
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 Cys Asp Val Pro  
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<210> 3127  
 <211> 2218  
 <212> DNA  
 <213> Homo sapiens

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 240  
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 660  
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1080  
cgtgacaccc gcatcctcct catcttcgag ggaaccaatg agattctccg gatgtacatc  
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2218

&lt;210&gt; 3128

&lt;211&gt; 565

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3128

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 35 40 45  
 Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe  
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 Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly  
 65 70 75 80  
 Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly  
 85 90 95  
 Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys  
 100 105 110  
 Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala  
 115 120 125  
 Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu  
 130 135 140  
 Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn  
 145 150 155 160  
 Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val  
 165 170 175  
 Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu  
 180 185 190  
 Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly  
 195 200 205  
 Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile  
 210 215 220  
 Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala  
 225 230 235 240  
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 Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr  
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 290 295 300  
 Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser  
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          450          455          460
Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile
465          470          475          480
Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg
          485          490          495
Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala
          500          505          510
Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser
          515          520          525
Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys
          530          535          540
Val Ser Gln Gln Ile Leu Glu Lys Arg Ala Tyr Ile Cys Ala His Pro
545          550          555          560
Leu Asp Arg Thr Cys
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&lt;210&gt; 3129

&lt;211&gt; 1964

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3129

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 1964

<210> 3130

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3130

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			20				25					30			
Gly	Pro	Gly	Ala	Ala	Gln	Glu	Pro	Thr	Trp	Leu	Thr	Asp	Val	Pro	Ala
			35				40				45				
Ala	Met	Glu	Phe	Ile	Ala	Ala	Thr	Glu	Val	Ala	Val	Ile	Gly	Phe	Phe
	50					55				60					
Gln	Asp	Leu	Glu	Ile	Pro	Ala	Val	Pro	Ile	Leu	His	Ser	Met	Val	Gln

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Lys	Phe	Pro	Gly	Val	Ser	Phe	Gly	Ile	Ser	Thr	Asp	Ser	Glu	Val
				85					90				95	
Thr	His	Tyr	Asn	Ile	Thr	Gly	Asn	Thr	Ile	Cys	Leu	Phe	Arg	Leu
			100					105					110	
Asp	Asn	Glu	Gln	Leu	Asn	Leu	Glu	Asp	Glu	Asp	Ile	Glu	Ser	Ile
		115					120					125		
Ala	Thr	Lys	Leu	Ser	Arg	Phe	Ile	Glu	Ile	Asn	Ser	Leu	His	Met
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Thr	Glu	Tyr	Asn	Pro	Val	Thr	Val	Ile	Gly	Leu	Phe	Asn	Ser	Val
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Gln	Ile	His	Leu	Leu	Leu	Ile	Met	Asn	Lys	Ala	Ser	Pro	Glu	Tyr
			165					170					175	
Glu	Asn	Met	His	Arg	Tyr	Gln	Lys	Ala	Ala	Lys	Leu	Phe	Gln	Gly
			180					185					190	
Ile	Leu	Phe	Ile	Leu	Val	Asp	Ser	Gly	Met	Lys	Glu	Asn	Gly	Lys
	195					200					205			
Ile	Ser	Phe	Phe	Lys	Leu	Lys	Glu	Ser	Gln	Leu	Pro	Ala	Leu	Ala
	210					215					220			
Tyr	Gln	Thr	Leu	Asp	Asp	Glu	Trp	Asp	Thr	Leu	Pro	Thr	Ala	Glu
225					230					235				240
Ser	Val	Glu	His	Val	Gln	Asn	Phe	Cys	Asp	Gly	Phe	Leu	Ser	Gly
			245					250					255	
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		260						265					270	
Leu														

&lt;210&gt; 3131

&lt;211&gt; 1544

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3131

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240

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300

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360

ctctgggcag ggatggaagc ctagatgcct caccgcaagg agcggccgag cgggtcctcg

420

cttcacacac acggcagcac cggcaccgcy gagggaggaa acatgtccc gctgtctctc

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540

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&lt;210&gt; 3132

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3132

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Gly	Ser	Thr	Gly	Thr	Ala	Glu	Gly	Gly	Asn	Met	Ser	Arg	Leu	Ser	Leu
			20					25					30		
Thr	Arg	Ser	Pro	Val	Ser	Pro	Leu	Ala	Ala	Gln	Gly	Ile	Pro	Leu	Pro
		35					40					45			
Ala	Gln	Leu	Thr	Lys	Ser	Asn	Ala	Pro	Val	His	Ile	Asp	Val	Gly	Gly
		50				55					60				
His	Met	Tyr	Thr	Ser	Ser	Leu	Ala	Thr	Leu	Thr	Lys	Tyr	Pro	Glu	Ser
65					70					75				80	
Arg	Ile	Gly	Arg	Leu	Phe	Asp	Gly	Thr	Glu	Pro	Ile	Val	Leu	Asp	Ser
			85					90					95		
Leu	Lys	Gln	His	Tyr	Phe	Ile	Asp	Arg	Asp	Gly	Gln	Met	Phe	Arg	Tyr
		100					105					110			
Ile	Leu	Asn	Phe	Leu	Arg	Thr	Ser	Lys	Leu	Leu	Ile	Pro	Asp	Asp	Phe

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      130      135      140
Pro Met Leu Leu Glu Met Glu Arg Trp Lys Gln Asp Arg Glu Thr Gly
145      150      155      160
Arg Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp
      165      170      175
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu Glu
      180      185      190
Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly
      195      200      205
Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr
      210      215      220
Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly
225      230      235      240
Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe
      245      250      255
Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg Arg Thr Pro Arg Val Pro
      260      265      270
Ser Val Ile Arg Ile Lys Gln Glu Pro Leu Asp
      275      280

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&lt;210&gt; 3133

&lt;211&gt; 621

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3133

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621

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&lt;210&gt; 3134

&lt;211&gt; 51

&lt;212&gt; PRT



<213> Homo sapiens

<400> 3134

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Ala	Val	Arg	Gln	Val	Pro	Ser	Ser	Cys	Ala	Ala	Ser	Arg	Lys	Asn	Glu
			20					25					30		
Thr	Glu	Val	Lys	Ser	Glu	Glu	Gly	Pro	Gly	Trp	Thr	Ile	Leu	Arg	Asp
			35				40						45		
Asp	Phe	Met													
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<210> 3135

<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

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<210> 3136

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3136

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&lt;211&gt; 5773

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3137

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1260

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&lt;210&gt; 3138

&lt;211&gt; 977

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3138

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Thr	Asp	Asn	Pro	Asp	Asp	Ser	Val	Phe	Tyr	Gln	Val	Gln	Ser	Leu	Phe				
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Gly	His	Leu	Met	Glu	Ser	Lys	Leu	Gln	Tyr	Tyr	Val	Pro	Glu	Asn	Phe				
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Trp	Lys	Ile	Phe	Lys	Met	Trp	Asn	Lys	Glu	Leu	Tyr	Val	Arg	Glu	Gln				
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Gln	Asp	Ala	Tyr	Glu	Phe	Phe	Thr	Ser	Leu	Ile	Asp	Gln	Met	Asp	Glu				
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Tyr	Leu	Lys	Lys	Met	Gly	Arg	Asp	Gln	Ile	Phe	Lys	Asn	Thr	Phe	Gln				
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Gly	Ile	Tyr	Ser	Asp	Gln	Lys	Ile	Cys	Lys	Asp	Cys	Pro	His	Arg	Tyr				
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Glu	Arg	Glu	Glu	Ala	Phe	Met	Ala	Leu	Asn	Leu	Gly	Val	Thr	Ser	Cys				
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Gln	Ser	Leu	Glu	Ile	Ser	Leu	Asp	Gln	Phe	Val	Arg	Gly	Glu	Val	Leu				
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Pro Leu His Glu Glu	Val Glu Ala Leu Leu Phe Met	Ser Glu Gly Lys			
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Tyr Ser Ala Leu Pro Arg Gly Leu Gly Cys Ser Leu Leu Phe Ile Pro
      50             55             60
Leu Gly Leu Val Asp Arg Arg Thr His Ala Pro Thr Val Leu Ala Leu

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&lt;210&gt; 3141

&lt;211&gt; 1815

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3141

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<210> 3142

<211> 451

<212> PRT

<213> Homo sapiens

<400> 3142

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		20					25				30				
Pro	Glu	Gly	Ile	Val	Glu	Glu	Phe	Ala	Thr	Glu	Gly	Thr	Asp	Arg	Lys
	35						40				45				
Asp	Val	Phe	Phe	Tyr	Gln	Ala	Asp	Asp	Glu	His	Tyr	Ile	Pro	Arg	Ala
	50					55					60				
Val	Leu	Leu	Asp	Leu	Glu	Pro	Arg	Val	Ile	His	Ser	Ile	Leu	Asn	Ser
65					70				75					80	
Pro	Tyr	Ala	Lys	Leu	Tyr	Asn	Pro	Glu	Asn	Ile	Tyr	Leu	Ser	Glu	His
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Gly	Gly	Gly	Ala	Gly	Asn	Asn	Trp	Ala	Ser	Gly	Phe	Ser	Gln	Gly	Glu
			100					105						110	
Lys	Ile	His	Glu	Asp	Ile	Phe	Asp	Ile	Ile	Asp	Arg	Glu	Ala	Asp	Gly
		115					120				125				
Ser	Asp	Ser	Leu	Glu	Gly	Phe	Val	Leu	Cys	His	Ser	Ile	Ala	Gly	Gly
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Thr	Gly	Ser	Gly	Leu	Gly	Ser	Tyr	Leu	Leu	Glu	Arg	Leu	Asn	Asp	Arg
145					150					155				160	
Tyr	Pro	Lys	Lys	Leu	Val	Gln	Thr	Tyr	Ser	Val	Phe	Pro	Asn	Gln	Asp
			165						170					175	
Glu	Met	Ser	Asp	Val	Val	Val	Gln	Pro	Tyr	Asn	Ser	Leu	Leu	Thr	Leu
			180					185					190		
Lys	Arg	Leu	Thr	Gln	Asn	Ala	Asp	Cys	Val	Val	Val	Leu	Asp	Asn	Thr

195	200	205
Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser		
210	215	220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr		
225	230	235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu		
245	250	255
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly		
260	265	270
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr		
275	280	285
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met		
290	295	300
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile		
305	310	315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser		
325	330	335
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly		
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Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro		
355	360	365
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile		
370	375	380
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys		
385	390	395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp		
405	410	415
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile		
420	425	430
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr		
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Gln Glu Gln		
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&lt;210&gt; 3143

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3143

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&lt;210&gt; 3144

<211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 3144  
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 Ala Trp Leu Thr Val Lys His Pro His Thr Val Asp Gln Gln Pro Pro  
 35 40 45  
 Leu Pro Thr Ser Gln Glu Leu Arg Pro Ala Ala Gln Pro Lys Gln Gln  
 50 55 60  
 Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro  
 65 70 75 80  
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<210> 3145  
 <211> 436  
 <212> DNA  
 <213> Homo sapiens

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<210> 3146  
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<400> 3146  
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 20 25 30  
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 35 40 45  
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

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      50              55              60
Leu Val Cys Gln Thr Leu Gln Pro Pro Ala Ser Gly His Ser Ala Arg
65              70              75              80
Gln Met Thr Ser Gly Gly Glu Pro His Ile Ser Thr Gly Ser Arg Arg
      85              90              95
Pro Arg Lys Leu Pro Trp Pro Ala His Pro Arg Cys Ser Ala Cys Pro
      100              105              110
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Gly Thr Ser
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<210> 3147

<211> 3106

<212> DNA

<213> Homo sapiens

<400> 3147

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1080

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<210> 3148

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3148

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			20				25					30			
Thr	Asp	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Thr	Lys
	35					40					45				
Trp	Ser	Ile	Gln	His	Pro	Gly	Gly	Gln	Arg	Val	Ile	Gly	His	Tyr	Ala
50					55					60					
Gly	Glu	Asp	Ala	Thr	Asp	Ala	Phe	Arg	Ala	Phe	His	Pro	Asp	Leu	Glu
65				70					75					80	
Phe	Val	Gly	Lys	Phe	Leu	Lys	Pro	Leu	Leu	Ile	Gly	Glu	Leu	Ala	Pro
			85					90					95		
Glu	Glu	Pro	Ser	Gln	Asp	His	Gly	Lys	Asn	Ser	Lys	Ile	Thr	Glu	Asp
		100					105					110			
Phe	Arg	Ala	Leu	Arg	Lys	Thr	Ala	Glu	Asp	Met	Asn	Leu	Phe	Lys	Thr
	115					120					125				
Asn	His	Val	Phe	Phe	Leu	Leu	Leu	Leu	Ala	His	Ile	Ile	Ala	Leu	Glu
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Ser	Ile	Ala	Trp	Phe	Thr	Val	Phe	Tyr	Phe	Gly	Asn	Gly	Trp	Ile	Pro
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			165					170					175		
Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys	Pro	Lys
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Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys	Gly	Ala
	195					200					205				
Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala	Lys	Pro
210					215						220				
Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Asn	Met	Leu	His	Val	Phe	Val
225				230					235					240	
Leu	Gly	Glu	Trp	Gln	Pro	Ile	Glu	Tyr	Gly	Lys	Lys	Lys	Leu	Lys	Tyr
			245					250					255		
Leu	Pro	Tyr	Asn	His	Gln	His	Glu	Tyr	Phe	Phe	Leu	Ile	Gly	Pro	Pro

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Val His Lys Asn Trp Val Asp Leu Ala Trp Ala Val Ser Tyr Tyr Ile
                290                295                300
Arg Phe Phe Ile Thr Tyr Ile Pro Phe Tyr Gly Ile Leu Gly Ala Leu
305                310                315                320
Leu Phe Leu Asn Phe Ile Arg Phe Leu Glu Ser His Trp Phe Val Trp
                325                330                335
Val Thr Gln Met Asn His Ile Val Met Glu Ile Asp Gln Glu Ala Tyr
                340                345                350
Arg Asp Trp Phe Ser Ser Gln Leu Thr Ala Thr Cys Asn Val Glu Gln
                355                360                365
Ser Phe Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
                370                375                380
His His Leu Phe Pro Thr Met Pro Arg His Asn Leu His Lys Ile Ala
385                390                395                400
Pro Leu Val Lys Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Glu
                405                410                415
Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu Lys Lys
                420                425                430
Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys
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&lt;210&gt; 3149

&lt;211&gt; 1006

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3149

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<210> 3150

<211> 201

<212> PRT

<213> Homo sapiens

<400> 3150

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		20					25					30			
Ala	Pro	Ala	Ala	Gly	Thr	Met	Gly	Ala	Ala	His	Ser	Ala	Ser	Glu	Glu
		35				40					45				
Val	Arg	Glu	Leu	Glu	Gly	Lys	Thr	Gly	Phe	Ser	Ser	Asp	Gln	Ile	Glu
	50					55				60					
Gln	Leu	His	Arg	Arg	Phe	Lys	Gln	Leu	Ser	Gly	Asp	Gln	Pro	Thr	Ile
65					70				75					80	
Arg	Lys	Glu	Asn	Phe	Asn	Asn	Val	Pro	Asp	Leu	Glu	Leu	Asn	Pro	Ile
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<210> 3151

<211> 2079

<212> DNA

<213> Homo sapiens

<400> 3151

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 1980  
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<210> 3152

<211> 214

<212> PRT

<213> Homo sapiens

<400> 3152

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			20					25					30		
Ile	Ala	Ser	Trp	Lys	Gly	Leu	Val	Arg	Phe	Leu	Asn	Ser	Leu	Gly	Thr
			35				40					45			
Ile	Phe	Ser	Phe	Ile	Ser	Lys	Asp	Val	Val	Ser	Lys	Leu	Arg	Ile	Met
	50					55					60				
Glu	Arg	Leu	Arg	Gly	Gly	Pro	Gln	Ser	Glu	His	Tyr	Arg	Ser	Leu	Gln
65					70					75				80	
Ala	Met	Val	Ala	His	Glu	Leu	Ser	Asn	Arg	Leu	Val	Asp	Leu	Glu	Gly
				85					90					95	
Arg	Ser	His	His	Pro	Glu	Ser	Gly	Cys	Arg	Thr	Val	Leu	Arg	Leu	His
			100					105					110		
Arg	Ala	Leu	His	Trp	Leu	Gln	Leu	Phe	Leu	Glu	Gly	Leu	Arg	Thr	Ser
			115				120					125			
Pro	Glu	Asp	Ala	Arg	Thr	Ser	Ala	Leu	Cys	Ala	Asp	Ser	Tyr	Asn	Ala
			130				135					140			
Ser	Leu	Ala	Ala	Tyr	His	Pro	Trp	Val	Val	Arg	Arg	Ala	Val	Thr	Val
145					150					155				160	
Ala	Phe	Cys	Thr	Leu	Pro	Thr	Arg	Glu	Val	Phe	Leu	Glu	Ala	Met	Asn
			165						170					175	
Val	Gly	Pro	Pro	Glu	Gln	Ala	Val	Gln	Met	Leu	Gly	Glu	Ala	Leu	Pro
			180					185					190		
Phe	Ile	Gln	Arg	Val	Tyr	Asn	Val	Ser	Gln	Lys	Leu	Tyr	Ala	Glu	His
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Ser	Leu	Leu	Asp	Leu	Pro										
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<210> 3153

<211> 1498

<212> DNA

<213> Homo sapiens

<400> 3153

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180  
gccaccaggg agcgccccgc gcgcggtcca cgtggcagag gtcgcggcct cgcggcgcg  
240  
ggaggagccg cacgccacag tggcagggtcc caggccgtca ctccagctc tcgccttccg  
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420  
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480  
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600  
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660  
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780  
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1498

&lt;210&gt; 3154

&lt;211&gt; 65

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3154

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          20          25          30
Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
          35          40          45
Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
 50          55          60
Gly
65

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<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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120
actaactgtg actcttcttc agaaggactg gaaaaggaca cagcaacaca gagaagtgc
180
cagacttgcc tagaaccatc atgttcattgt tcttctgaaa atcaggaatg ccagactgct
240
gccagccctg gggaaattct ggaaattttg aagaaagggg aggcatttgt tttagatatt
300
gacttggatt ttttttcagt caagaatccc ttcaaaaaaa tggtcactca ggaagagtac
360
aaaatcttac aagagctgta ccaatttaag aaacctggca ccaacctaac agaggaagat
420
ttggtagata ttgttgatac tcgaattcat caattagagg atttagaagc cactttcgct
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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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Val Ser Ser Ala Lys Lys Pro Lys Leu Ala Leu Glu Asp Ser Glu Asn
          20          25          30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Ser Glu Gly Leu Glu Lys Asp
          35          40          45
Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

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50		55		60	
Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu					
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Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp					
	85		90		95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln					
	100		105		110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly					
	115		120		125
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile					
	130		135		140
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly					
145		150		155	160
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu					
	165		170		175
Ser Leu					

&lt;210&gt; 3157

&lt;211&gt; 903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3157

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240
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720
gaacaggacc ccacggacga ggatccctgc cgggggtgtg gccctgctct ggtcaccacc
780
cgctggcgct cccccagggg ccggagccgg ggccgcccc gactggggg cgggggtggtt
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900

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<210> 3158  
<211> 92  
<212> PRT  
<213> Homo sapiens

<400> 3158  
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20 25 30  
Thr Glu Pro Pro Thr Pro Glu Pro Gly Pro Lys Thr Pro Pro Arg Thr  
35 40 45  
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val  
50 55 60  
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln  
65 70 75 80  
Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln  
85 90

<210> 3159  
<211> 2408  
<212> DNA  
<213> Homo sapiens

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180  
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780

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2040  
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2100  
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2160  
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2280  
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2400

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2408

<210> 3160  
<211> 431  
<212> PRT  
<213> Homo sapiens

<400> 3160

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			20					25					30		
Glu	Lys	Leu	Leu	Glu	Lys	Tyr	Met	Asp	Glu	Asp	Gly	Glu	Trp	Trp	Ile
	35					40					45				
Ala	Lys	Gln	Arg	Gly	Lys	Arg	Ala	Ile	Thr	Asp	Asn	Asp	Met	Gln	Ser
	50					55					60				
Ile	Leu	Asp	Leu	His	Asn	Lys	Leu	Arg	Ser	Gln	Val	Tyr	Pro	Thr	Ala
65					70					75				80	
Ser	Asn	Met	Glu	Tyr	Met	Thr	Trp	Asp	Val	Glu	Leu	Glu	Arg	Ser	Ala
				85					90					95	
Glu	Ser	Trp	Ala	Glu	Ser	Cys	Leu	Trp	Glu	His	Gly	Pro	Ala	Ser	Leu
			100					105					110		
Leu	Pro	Ser	Ile	Gly	Gln	Asn	Leu	Gly	Ala	His	Trp	Gly	Arg	Tyr	Arg
			115				120					125			
Pro	Pro	Thr	Phe	His	Val	Gln	Ser	Trp	Tyr	Asp	Glu	Val	Lys	Asp	Phe
	130					135					140				
Ser	Tyr	Pro	Tyr	Glu	His	Glu	Cys	Asn	Pro	Tyr	Cys	Pro	Phe	Arg	Cys
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Ser	Gly	Pro	Val	Cys	Thr	His	Tyr	Thr	Gln	Val	Val	Trp	Ala	Thr	Ser
				165					170					175	
Asn	Arg	Ile	Gly	Cys	Ala	Ile	Asn	Leu	Cys	His	Asn	Met	Asn	Ile	Trp
			180					185					190		
Gly	Gln	Ile	Trp	Pro	Lys	Ala	Val	Tyr	Leu	Val	Cys	Asn	Tyr	Ser	Pro
			195				200					205			
Lys	Gly	Asn	Trp	Trp	Gly	His	Ala	Pro	Tyr	Lys	His	Gly	Arg	Pro	Cys
	210					215					220				
Ser	Ala	Cys	Pro	Pro	Ser	Phe	Gly	Gly	Gly	Cys	Arg	Glu	Asn	Leu	Cys
225					230					235				240	
Tyr	Lys	Glu	Gly	Ser	Asp	Arg	Tyr	Tyr	Pro	Pro	Arg	Glu	Glu	Glu	Thr
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			260					265					270		
Thr	Arg	Ser	Asp	Asp	Ser	Ser	Arg	Asn	Glu	Val	Ile	Ser	Ala	Gln	Gln
			275				280					285			
Met	Ser	Gln	Ile	Val	Ser	Cys	Glu	Val	Arg	Leu	Arg	Asp	Gln	Cys	Lys
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Gly	Thr	Thr	Cys	Asn	Arg	Tyr	Glu	Cys	Pro	Ala	Gly	Cys	Leu	Asp	Ser
305					310					315				320	
Lys	Ala	Lys	Val	Ile	Gly	Ser	Val	His	Tyr	Glu	Met	Gln	Ser	Ser	Ile
				325					330					335	
Cys	Arg	Ala	Ala	Ile	His	Tyr	Gly	Ile	Ile	Asp	Asn	Asp	Gly	Gly	Trp
			340					345				350			
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<400> 3161
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240
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300
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360
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420
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<210> 3162

<211> 386

<212> PRT

<213> Homo sapiens

<400> 3162

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 <211> 1075  
 <212> DNA  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3165

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&lt;210&gt; 3166

&lt;211&gt; 717

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



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Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys  
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Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg  
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Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg  
100 105 110  
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu  
115 120 125  
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu  
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Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His  
145 150 155 160  
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val  
165 170 175  
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser  
180 185 190  
Leu Arg Glu Thr Trp Glu Leu Glu Glu Phe Arg Glu Gly Ile Glu Glu  
195 200 205  
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu  
210 215 220  
Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val  
225 230 235 240  
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245 250 255  
Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu Leu  
260 265 270  
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Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg Val  
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Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg Glu  
305 310 315 320  
Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr Phe  
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Phe	Gly	Ser	Glu	Ala	Lys	Ala	Gln	Gln	Gln	Glu	Glu	Gln	Gly	Ser	Val	
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Gln	Val	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Gln	Glu	Glu	Glu	Glu	Glu	
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Asp	Glu	Asp	Asp	Glu	Asp	Asp	Glu	Glu	Glu	Asp	Arg	Met	Glu	Val	Gly	
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Pro	Phe	Ser	Thr	Gly	Gln	Glu	Ser	Pro	Thr	Ala	Glu	Asn	Ala	Arg	Leu	
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Gln	Thr	Glu	Asp	Pro	Ala	Glu	Leu	Met	Leu	Glu	Asn	Tyr	Asp	Thr	Met	
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Cys	Lys	Thr	Asp	Thr	Leu	Gly	Leu	Ser	Cys	Gly	Val	Gly	Ser	Gly	Asn	
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Cys	Ser	Asn	Ser	Ser	Ser	Ser	Asn	Phe	Glu	Gly	Leu	Leu	Trp	Ser	Gln	
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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3168

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3168

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&lt;210&gt; 3169

&lt;211&gt; 5945

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3169

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<211> 412

<212> PRT

<213> Homo sapiens

<400> 3170

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Pro	Glu	Gln	Gln	Met	Ile	Ala	Asp	Ile	His	Cys	Met	Ile	Ala	Ala	Gly
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Gln	Asp	Leu	Asp	Trp	Ile	Asp	Ala	Gln	Gly	Ala	Thr	Leu	Leu	His	Ile
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Ala	Gly	Ala	Asn	Gly	Tyr	Leu	Arg	Ala	Ala	Glu	Leu	Leu	Leu	Asp	His
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Gly	Val	Arg	Val	Asp	Val	Lys	Asp	Trp	Asp	Gly	Trp	Glu	Pro	Leu	His
			100					105					110		
Ala	Ala	Ala	Phe	Trp	Gly	Gln	Met	Gln	Met	Ala	Glu	Leu	Leu	Val	Ser
		115				120					125				
His	Gly	Ala	Ser	Leu	Ser	Ala	Arg	Thr	Ser	Met	Asp	Glu	Met	Pro	Ile
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Asp	Leu	Cys	Glu	Glu	Glu	Glu	Phe	Lys	Val	Leu	Leu	Leu	Glu	Leu	Lys
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His	Lys	His	Asp	Val	Ile	Met	Lys	Ser	Gln	Leu	Arg	His	Lys	Ser	Ser
			165						170					175	
Leu	Ser	Arg	Arg	Thr	Ser	Ser	Ala	Gly	Ser	Arg	Gly	Lys	Val	Val	Arg
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Arg	Ala	Ser	Leu	Ser	Asp	Arg	Thr	Asn	Leu	Tyr	Arg	Lys	Glu	Tyr	Glu
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Gly	Glu	Ala	Ile	Leu	Trp	Gln	Arg	Ser	Ala	Ala	Glu	Asp	Gln	Arg	Thr
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305	310	315
Ser Pro Gln Thr Leu Leu Glu Leu Lys Arg Gln Arg Ala Ala Ala Lys		
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340	345	350
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370	375	380
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&lt;210&gt; 3171

&lt;211&gt; 753

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3171

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&lt;210&gt; 3172

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3172

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Gly Thr Ser Asp Ala Glu Thr Ser Ala Leu His Ile Val Val Gly Asp
      35           40           45
Ser Leu Ala Met Asp Val Ser Ser Val His His Asn Ser Thr Leu Leu
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Arg Tyr Ser Val Ser Leu Leu Gly Tyr Gly Phe Tyr Gly Asp Ile Ile
65           70           75           80
Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
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          130          135          140
Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
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Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
          165          170          175
Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
          180          185          190
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Cys Ser Arg Phe Asn Phe Leu Arg Phe Leu Ile Trp His Glu Val Cys
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Lys Lys Pro Leu
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&lt;210&gt; 3173

&lt;211&gt; 573

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3173

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<211> 152

<212> PRT

<213> Homo sapiens

<400> 3174

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His	Leu	Pro	Cys	Leu	Gln	Val	Gly	Gln	Glu	Gln	Lys	His	Thr	Tyr	Leu
65				70				75						80	
Pro	Leu	Glu	Val	Cys	Asn	Ile	Val	Ala	Gly	Gln	Arg	Cys	Ile	Lys	Lys
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Ala	Pro	Asp	Arg	Gln	Glu	Glu	Ile	Ser	Arg	Leu	Val	Arg	Ser	Ala	Asn
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<210> 3175

<211> 948

<212> DNA

<213> Homo sapiens

<400> 3175

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<211> 92

<212> PRT

<213> Homo sapiens

<400> 3176

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			20					25					30		
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Arg	Gly	Asn	Glu	Tyr	Gln	Pro	Ser	Asn	Ile	Lys	Arg	Lys	Asn	Lys	His
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<210> 3177

<211> 1857

<212> DNA

<213> Homo sapiens

<400> 3177

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&lt;210&gt; 3178

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 <213> Homo sapiens

<400> 3178

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Leu Leu Ser Asn Leu Ala Thr Arg Leu Trp Leu Arg Asn Gly Ala Pro
      50           55           60
Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu
      65           70           75           80
Leu Val Gly Thr Gln Gln Leu Gly Glu Phe Gln Cys Trp Ser Leu Glu
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Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu
      100          105          110
Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile
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Ile Ser Thr Ser Arg Val Ser Ala Pro Ala Gly Gly Lys Ala Ser Trp
      130          135          140
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Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu Leu Tyr Arg His
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Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val
      180          185          190
His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu
      195          200          205
Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln
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<400> 3179

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<211> 127

<212> PRT

<213> Homo sapiens

<400> 3180

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			20				25					30			
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		35				40					45				
Asn	Asn	Phe	Met	Ile	Asn	Lys	Glu	Leu	Gln	Leu	Glu	Thr	Lys	Ala	Asn
	50					55				60					
Ser	Arg	Asn	Ser	Leu	Thr	Pro	Ser	Cys	Pro	Met	Val	Phe	Met	Ile	Ala
65				70					75					80	
Cys	Tyr	Gln	Asn	Glu	Ala	Leu	Cys	Ser	Thr	Leu	Tyr	Ser	Lys	Ala	Phe
			85					90					95		
Tyr	Ala	Pro	Thr	Arg	Pro	Ser	Gly	Ile	Pro	Glu	Ser	Ala	Leu	His	Thr
			100				105					110			
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<211> 287

<212> DNA

<213> Homo sapiens

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<210> 3182

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3182

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			20				25					30			
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<211> 140

<212> PRT

<213> Homo sapiens

<400> 3184

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		20						25					30		
Gln	Thr	Gln	Leu	Leu	Val	Pro	Lys	Lys	Val	Leu	Pro	Glu	Ser	Cys	Arg
		35					40					45			
Leu	Ser	Trp	Asn	Leu	Leu	Gly	Asp	Glu	Ala	Ala	Ala	Glu	Leu	Ala	Gln
	50					55				60					
Val	Leu	Pro	Gln	Met	Gly	Arg	Leu	Lys	Arg	Val	Asp	Leu	Glu	Lys	Asn
65					70				75					80	
Gln	Ile	Thr	Ala	Leu	Gly	Ala	Trp	Leu	Leu	Ala	Glu	Gly	Leu	Ala	Gln
			85					90					95		
Gly	Ser	Ser	Ile	Gln	Val	Ile	Arg	Leu	Trp	Asn	Asn	Pro	Ile	Pro	Cys
			100					105					110		
Asp	Met	Ala	Gln	His	Leu	Lys	Ser	Gln	Glu	Pro	Arg	Leu	Asp	Phe	Ala
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Phe	Phe	Asp	Asn	Gln	Pro	Gln	Ala	Pro	Trp	Gly	Thr				
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<210> 3185

<211> 1433

<212> DNA

<213> Homo sapiens

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<210> 3186

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3186

Met	Pro	Leu	Leu	Trp	Phe	Val	Gln	Val	Thr	Gly	Val	Pro	Arg	Pro	Leu
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His	Asp	Gln	His	Pro	Val	Val	Gly	Gln	Leu	Leu	Gln	Val	Leu	Lys	Ala
			20					25					30		
Gly	Leu	Thr	His	Gly	Val	Leu	Val	Ser	Ile	Tyr	Asn	Gln	Ser	Trp	Ser
		35					40					45			
Leu	Arg	Gly	Arg	Ile	Gly	Gly	Trp	Gly	Arg	Val	Asn	Arg	Thr	Cys	His
	50					55				60					
Ser	Ile	Pro	Ser	Pro	Pro	His	Phe	Ser	Leu	Phe	Leu	Gly	Pro	Pro	His
65				70					75				80		
Met	Arg	Glu	Arg	Asp	Lys	Leu	Ala	Gln	Trp	Val	Gly	Ala	Gln	Ile	Gly

85 90 95  
 Val Cys Pro Arg Thr Gln Phe Ser Thr Gly Leu Gly Thr Val Val Cys  
 100 105 110

<210> 3187  
 <211> 860  
 <212> DNA  
 <213> Homo sapiens

<400> 3187  
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 tatctaccag gagacggagt ttcgctatgt ttcccagact ggttttgaac tcctggccta  
 120  
 aagtggtcct ccgcctcgg cctcctgagt agctgggatt acagatatgt tcctaaaaca  
 180  
 tccctgagtt caccaccttg gccagaagtt gttctgccag acccagttga ggagaccaga  
 240  
 caccatgcag aggtcgtgaa gaaggatgaat gagatgatcg tcacggggca gtatggcagg  
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 360  
 ttaattggaa atgaactaga ccttgctgtg ggagagagaa ttcgactgga gaaggctcctg  
 420  
 ctggttgggg cagacaactt cacgctgctt ggcaagccac tcctcgggta atggctgtga  
 480  
 agtgctgggc tttgtctggg gctccagggc tggacatgca gacagtggtc acagtgcaat  
 540  
 taggccagaa aggatcttgt tcgagtagaa gccacagtca ttgaaaagac agaatcatgg  
 600  
 ccaagaatca ttatgagatt caggaaaagg aaaaacttca agaagaaaag aagtaagtta  
 660  
 gagaaagtac cgctgggccc tgttgccacgg tgctgggttc ccaggcgcat ggggacggag  
 720  
 ggtgtggggc acgtgggtct cgggacagga agcccaggca ggtctcaacc tggctgccac  
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 860

<210> 3188  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3188  
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 Asp Tyr Arg Tyr Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro  
 20 25 30  
 Glu Val Val Leu Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu  
 35 40 45  
 Val Val Lys Lys Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65              70              75              80
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
      100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
      115              120

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&lt;210&gt; 3189

&lt;211&gt; 440

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3189

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agcctgggga agcaagtccc tgttttcagt accacctgca tccccaggg cagcatcctt
120
gactcccctt ctgggccagt gctgccctgc tttctctgtc tctttcaggg tgtgctgtcc
180
gacctcacca aagtgacccg gatgcatgga atcgaccctg tgggtgctggt cctgatgggt
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420
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440

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&lt;210&gt; 3190

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3190

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Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
1              5              10              15
Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
      20              25              30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
      35              40              45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
      50              55              60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65              70              75              80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
      85              90              95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
      100              105              110

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<210> 3191  
 <211> 266  
 <212> DNA  
 <213> Homo sapiens

<400> 3191  
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 accttttgcg gcagtcgcta aattgccacg ggtcgtcttt gctctctcta cttcggagcg  
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 266

<210> 3192  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 3192  
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 Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser  
 35 40 45  
 Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg  
 50 55 60  
 Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser  
 65 70 75 80  
 Pro Ser Ala Ser

<210> 3193  
 <211> 567  
 <212> DNA  
 <213> Homo sapiens

<400> 3193  
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 tggagtgcgt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaac  
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 240  
 gagtcagcgg ttcattgcttt gcatgcaaag tgcccagccc ctggctcaaa gtctgtgttc  
 300  
 atccagacct gggttaacta ctgtcttctt tatgttggtc ctgtggggac gcctggggct  
 360



gctggcctcg tgattcctct ctttccctgc aggccacggg tcacctactt ccccttctcc  
 420  
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<210> 3194

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3194

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Lys	Cys	Pro	Ala	Pro	Gly	Ser	Lys	Ser	Val	Phe	Ile	Gln	Thr	Trp	Val
		20				25						30			
Asn	Tyr	Cys	Leu	Pro	Tyr	Val	Val	Pro	Val	Gly	Thr	Pro	Gly	Ala	Ala
		35				40						45			
Gly	Leu	Val	Ile	Pro	Leu	Phe	Pro	Cys	Arg	Pro	Arg	Phe	Thr	Tyr	Phe
	50					55				60					
Pro	Phe	Ser	Leu	Gly	His	Arg	Ser	Cys	Ile	Gly	Gln	Gln	Phe	Ala	Gln
65					70					75				80	
Met	Glu	Val	Lys	Val	Val	Met	Ala	Lys	Leu	Leu	Gln	Arg	Leu	Glu	Phe
			85						90				95		
Arg	Leu	Val	Pro	Gly	Gln	Arg	Phe	Gly	Leu	Gln	Glu	Gln	Ala	Thr	Leu
			100					105					110		
Lys	Pro	Leu	Asp												
			115												

<210> 3195

<211> 987

<212> DNA

<213> Homo sapiens

<400> 3195

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 120  
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 180  
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 300  
 catcctccgg ctccatcgtg tccttcaaaa gtgctgacag catcaaaagt cgaccaggaa  
 360  
 tcccacgact tgcgggtgac ggtggcgagc gaacgtcccc cgagcggaga gagccaggga  
 420  
 cggggaggaa agacgacgat gttgcgagca taatgaagaa atacctccag aagtaggaac  
 480

cagttcagcc tccttgaagc tgccttgaa gacttcccga ctctacaata acttgagagac  
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 agagagactg gccaggcctc cccggtggcc agagccagcc agcatggcca cctcaagag  
 600  
 gcgagatgag cccacagagg catatcctgc ggggatgctg ggctcccagt gtggttggcc  
 660  
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 720  
 ggattccaga gagttgatgg ggtgcagata ggggtaggac tgtagaata gaaccaaccc  
 780  
 aaactgtgtg tagtttgggg tgtatacttc tatttctctt cctacatgtc tacatgccat  
 840  
 gaccttctc ctctcttca cttggccagt ttcagctcac ttctccagg aagtctttcc  
 900  
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<210> 3196

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3196

Met	Glu	Glu	Pro	Leu	Gly	Ser	Asp	Pro	Phe	Ser	Trp	Lys	Leu	Pro	Ser
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Leu	Asp	Tyr	Glu	Arg	Lys	Thr	Lys	Val	Asp	Phe	Asp	Asp	Phe	Leu	Pro
			20					25					30		
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
			35				40						45		
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50					55					60				
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
65					70					75				80	
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
				85					90					95	
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
			100					105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
		115				120						125			
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Val	Ala	
	130					135					140				
Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
145					150										

<210> 3197

<211> 5575

<212> DNA

<213> Homo sapiens

<400> 3197

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120  
agagcaatgg cgacactgga tcgcaaagtg cccagtcgag aggcgtttct gggcaaacc  
180  
tggtcctcct ggatcgacgc cgccaaatta cactgctccg acaatgtaga tttagaagag  
240  
gctggaaaag aggggtggaaa aagcagggag gttatgaggc ttaataaaga agatatgcac  
300  
ttatttgcc attaccagc acatgacgac ttctatctcg tagtgtgcag tgctgtaac  
360  
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420  
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480  
aaaacaaaag cctgtctcag cggccatcac tctgccagca gcacctcaa gccattcaaa  
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ctagtgaagg cagatggtgc caatgtcaaa atgaactcca caaccactac tgcagtttct  
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gcctccccc cctcgctctc tgccgtctcc accctcctt taattaagcc tgtcctgatg  
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4800  
aaaaacaaaa tctccacaac aaaataaccc tctgatttat aaactcttat agtcaaagag  
4860  
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4920

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 4980  
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<210> 3198

<211> 833

<212> PRT

<213> Homo sapiens

<400> 3198

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Lys	Pro	Trp	Ser	Trp	Ile	Asp	Ala	Ala	Lys	Leu	His	Cys	Ser	Asp	
			20				25					30			
Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
			35				40					45			
Val	Met	Arg	Leu	Asn	Lys	Glu	Asp	Met	His	Leu	Phe	Gly	His	Tyr	Pro
			50			55					60				
Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
65					70					75				80	
Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
			85						90					95	
Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
			100					105					110		
Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
			115				120						125		
Ser	Ala	Ser	Ser	Thr	Ser	Lys	Pro	Phe	Lys	Thr	Pro	Lys	Asp	Asn	Leu
			130				135						140		
Leu	Thr	Ser	Ser	Ser	Lys	Gln	His	Thr	Val	Phe	Pro	Ala	Lys	Gly	Ser
145					150					155				160	
Arg	Asp	Lys	Pro	Cys	Val	Pro	Val	Pro	Val	Val	Ser	Leu	Glu	Lys	Ile
				165					170					175	
Pro	Asn	Leu	Val	Lys	Ala	Asp	Gly	Ala	Asn	Val	Lys	Met	Asn	Ser	Thr
			180					185					190		
Thr	Thr	Thr	Ala	Val	Ser	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Ala	Val	Ser

```

      195              200              205
Thr Pro Pro Leu Ile Lys Pro Val Leu Met Ser Lys Ser Val Pro Pro
210              215              220
Ser Pro Glu Lys Ile Leu Asn Gly Lys Gly Ile Leu Pro Thr Thr Ile
225              230              235              240
Asp Lys Lys His Gln Asn Gly Thr Lys Asn Ser Asn Lys Pro Tyr Arg
      245              250              255
Arg Leu Ser Glu Arg Glu Phe Asp Pro Asn Lys His Cys Gly Val Leu
      260              265              270
Asp Pro Glu Thr Lys Lys Pro Cys Thr Arg Ser Leu Thr Cys Lys Thr
      275              280              285
His Ser Leu Ser His Arg Arg Ala Val Pro Gly Arg Lys Lys Gln Phe
      290              295              300
Asp Leu Leu Leu Ala Glu His Lys Ala Lys Ser Arg Glu Lys Glu Val
305              310              315              320
Lys Asp Lys Glu His Leu Leu Thr Ser Thr Arg Glu Ile Leu Pro Ser
      325              330              335
Gln Ser Gly Pro Ala Gln Asp Ser Leu Leu Gly Ser Ser Gly Ser Ser
      340              345              350
Gly Pro Glu Pro Lys Val Ala Ser Pro Ala Lys Ser Arg Pro Pro Asn
      355              360              365
Ser Val Leu Pro Arg Pro Ser Ser Ala Asn Ser Ile Ser Ser Ser Thr
      370              375              380
Ser Ser Asn His Ser Gly His Thr Pro Glu Pro Pro Leu Pro Pro Val
385              390              395              400
Gly Gly Asp Leu Ala Ser Arg Leu Ser Ser Asp Glu Gly Glu Met Asp
      405              410              415
Gly Ala Asp Glu Ser Glu Lys Leu Asp Cys Gln Phe Ser Thr His His
      420              425              430
Pro Arg Pro Leu Ala Phe Cys Ser Phe Gly Ser Arg Leu Met Gly Arg
      435              440              445
Gly Tyr Tyr Val Phe Asp Arg Arg Trp Asp Arg Phe Arg Phe Ala Leu
450              455              460
Asn Ser Met Val Glu Lys His Leu Asn Ser Gln Met Trp Lys Lys Ile
465              470              475              480
Pro Pro Ala Ala Asp Ser Pro Met Pro Ser Pro Ala Ala His Ile Thr
      485              490              495
Thr Pro Val Pro Ala Ser Val Leu Gln Pro Phe Ser Asn Pro Ser Ala
      500              505              510
Val Tyr Leu Pro Ser Ala Pro Ile Ser Ser Arg Leu Thr Ser Ser Tyr
      515              520              525
Ile Met Thr Ser Ala Met Leu Ser Asp Ala Ala Phe Val Thr Ser Pro
530              535              540
Asp Pro Ser Ala Leu Met Ser His Thr Thr Ala Phe Pro His Val Ala
545              550              555              560
Ala Thr Leu Ser Ile Met Asp Ser Thr Phe Lys Ala Pro Ser Ala Val
      565              570              575
Ser Pro Ile Pro Ala Val Ile Pro Ser Pro Ser His Lys Pro Ser Lys
      580              585              590
Thr Lys Thr Ser Lys Ser Ser Lys Val Lys Asp Leu Ser Thr Arg Ser
      595              600              605
Asp Glu Ser Pro Ser Asn Lys Lys Arg Lys Pro Gln Ser Ser Thr Ser
610              615              620
Ser Ser Ser Ser Ser Ser Ser Ser Ser Leu Gln Thr Ser Leu Ser Ser

```

```

625          630          635          640
Pro Leu Ser Gly Pro His Lys Lys Asn Cys Val Leu Asn Ala Ser Ser
          645          650          655
Ala Leu Asn Ser Tyr Gln Ala Ala Pro Pro Tyr Asn Ser Leu Ser Val
          660          665          670
His Asn Ser Asn Asn Gly Val Ser Pro Leu Ser Ala Lys Leu Glu Pro
          675          680          685
Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
          690          695          700
Val Gly Ala Val Gly Gly Ser Ser Asp Ser Cys Pro Leu Ser Val Pro
705          710          715          720
Ser Leu Ala Leu His Ala Gly Asp Leu Ser Leu Ala Ser His Asn Ala
          725          730          735
Val Ser Ser Leu Pro Leu Ser Phe Asp Lys Ser Glu Gly Lys Lys Arg
          740          745          750
Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
          755          760          765
Gly Met Asn Ser Val His Lys Lys Asn Pro Pro Ser Leu Leu Ala Pro
          770          775          780
Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
785          790          795          800
Ser Ser Leu Ala Leu Ser Gln Ser Ser Pro Ser Ser Ile Ser Ser Pro
          805          810          815
Gly His Ser Arg Gln Asn Thr Asn Arg Thr Gly Arg Ile Arg Thr Leu
          820          825          830
Pro

```

&lt;210&gt; 3199

&lt;211&gt; 777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3199

```

acgcgtgagg tccggccact gcgcagtcag acacgccggc tgctgcagtg gggcaggcag
60
ctccaggtgc tggtaggggc ccagctctc tgcgaggctg tggctggacc aggcatacag
120
caagcagctc ccacagctgg cactggggaa cgtggtgaca ccagaagct tggagatgcc
180
aggaaccgca agggcccaaa gagagtgtca cagccctggc ttagggagct cctaggtctg
240
ggctgcccga agagcaaggg ctcttccttc cttctttctt ttctccttct tgctacctgc
300
aacatggcga gcaaggggca tgtctcagcc ctgtttgtga tacagctctt ttagccctgc
360
catccagtgg gtcctgagtt cttgtccggc aaccaggaag aatgaggtac ccagacaagt
420
gtagagtgac caagacaaag aggagcttta ctgagtgaca atagctcaga ggaggccctg
480
gagagggcag ttctcacta cagctggtea tccgacgtct gctcagctct ggctgagcct
540
ggggcttctg tcagcctcag agagggggaa gttcatgctg actggtccat gggcggccat
600

```



gggcaggccc agaaaaggca acacaagttc gcactccagt ccacggcact gacagcctgg  
 660  
 cccccagcct tcagggcctc cctggcctga aggtgggcct caccaggac tcacccctt  
 720  
 ctgcccagaa acctgtctgc ctccctgtgc cattcatggc gcccaggcta taggtat  
 777

<210> 3200

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3200

Met	Leu	Gln	Val	Ala	Arg	Arg	Arg	Lys	Glu	Arg	Arg	Lys	Glu	Glu	Pro
1				5				10					15		
Leu	Leu	Phe	Gly	Gln	Pro	Arg	Pro	Arg	Ser	Ser	Leu	Ser	Gln	Gly	Cys
			20					25					30		
Asp	Thr	Leu	Phe	Gly	Ala	Leu	Arg	Phe	Leu	Ala	Ser	Pro	Ser	Phe	Trp
			35				40					45			
Val	Ser	Pro	Arg	Ser	Pro	Val	Pro	Ala	Val	Gly	Ala	Ala	Cys	Cys	Met
	50				55				60						
Pro	Gly	Pro	Ala	Thr	Ala	Ser	Gln	Arg	Ala	Gly	Ala	Leu	Thr	Ser	Thr
65				70					75				80		
Trp	Ser	Cys	Leu	Pro	His	Cys	Ser	Ser	Arg	Arg	Val				
			85					90							

<210> 3201

<211> 390

<212> DNA

<213> Homo sapiens

<400> 3201

acacgcgcag tgcgtctcct actgaaccgc agccctgct atgggtacgc ggaagcagct  
 60  
 cccgtcgcgc ctgccccagg ctggacggaa gggccacgct gcagccgggg tgagcacagc  
 120  
 gaagccgaca gcctttggga ccgaggtcag cagctgcacc ggcgcaagaa ttccaaacac  
 180  
 agctgtggct gaagggcctg ggggtgtgca ggtcccaaac cccagtgagc ctgatcccg  
 240  
 catgggtcct gtctcctggg ggccaccttt gtgtcccgtg gtggtgacc ctgagagggg  
 300  
 gggctgtggg gatgctcaca tgacactggg gtcccagcga cagccctcc tcacgtgcg  
 360  
 tgtccctggg gcctctcagg agggacgcgt  
 390

<210> 3202

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3202

Met Gly Thr Arg Lys Gln Leu Pro Ser Arg Leu Pro Gln Ala Gly Arg

```

      1             5             10             15
Lys Gly His Ala Ala Ala Gly Val Ser Thr Ala Lys Pro Thr Ala Phe
      20             25             30
Gly Thr Glu Val Ser Ser Cys Thr Gly Ala Arg Ile Pro Asn Thr Ala
      35             40             45
Val Ala Glu Gly Pro Gly Gly Val Gln Val Pro Asn Pro Ser Glu Pro
      50             55             60
Asp Pro Asp Met Gly Pro Val Ser Trp Gly Pro Pro Leu Cys Pro Val
      65             70             75             80
Val Ala Asp Pro Glu Arg Glu Gly Cys Gly Asp Ala His Met Thr Leu
      85             90             95
Gly Ser Gln Arg Gln Pro Leu Leu Thr Leu Arg Val Pro Gly Ala Ser
      100             105             110
Gln Glu Gly Arg
      115

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&lt;210&gt; 3203

&lt;211&gt; 1906

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3203

```

ngaattcggc acgagctcgt gccgaatcgg cacgagcgcg ggcccaggag cggcaggact
60
cgggcccggag cgtggccgga ccccccacccg ccgagggggcc cagggaggac gcggcagagt
120
cacggtggca gcattgagag ttggacaccc gggtccttga agtgatctct agggcccagc
180
cccaaattcc ccaccattcc gtgctgcggg gacaccatgg ctccagaaga ggacgctgga
240
ggggaggcct tagggggcag tttctgggag gctggcaact acaggcgcac ggtacagcgg
300
gtggaggacg ggcaccggct gtgcggggac ctggtcagct gcttccagga gcgcgcccgc
360
atcgagaagg cttatgccca gcagttggct gactggggccc gaaagtggag ggggaccgtg
420
gagaagggcc ccagtatgag cactctggag aaggcctggc atgccttttt cacggcggct
480
gagcggctga gcgcgctgca cctggagggtg cgggagaagc tgcaagggca ggacagtga
540
cgggtgcgcg cctggcagcg gggggctttc caccggcctg tgctgggcgg cttccgcgag
600
agccggggcg ccgaggacgg cttccgcaag gccagaagc cctggctgaa gaggctgaag
660
gagggttgagg cttccaagaa aagctaccac gcagcccgga aggatgagaa gaccgcccag
720
acgagggaga gccacgcaaa ggcagacagc gccgtctccc aggagcagct gcgcaaactg
780
caggaacggg tggaaacgtg tgccaaggag gccgagaaga caaaagctca gtatgagcag
840
acgctggcag agctgcatcg ctacactcca cgctacatgg aggacatgga acaggccttt
900
gagacctgcc aggccgccga gcgccagcgg cttcttttct tcaaggatat gctgctcacc
960

```

ttacaccagc acctggacct ttccagcagt gagaagttcc atgaactcca ccgtgacttg  
 1020  
 caccagggca ttgaggcagc cagtgcagaa gaggatctgc gctgggtggc cagcaccac  
 1080  
 gggccaggca tggccatgaa ctggccacag ttcgaggagt ggtccttgga cacacagagg  
 1140  
 acaatcagcc ggaaagagaa gggtagggcgg agccctgatg aggttacct gaccagcatt  
 1200  
 gtgcctacaa gagatggcac cgcaccccca cccagtcct cgggggtcccc aggcacgggg  
 1260  
 caggatgagg agtggtcaga tgaagagagt ccccggaagg ctgccaccgg ggttcgggtg  
 1320  
 agggcactct atgactacgc tggccaggaa gctgatgagc tgagcttcg agcaggggag  
 1380  
 gagctgctga agatgagtga ggaggacgag cagggtggt gccaaaggcca gttgcagagt  
 1440  
 ggccgcattg gcctgtacct tgccaactac gtggagtgtg tgggcgcctg agtgtcctga  
 1500  
 cageccttct gcaacgttta cccaccctgg ttcagagccc agcttctcct ggagagccgg  
 1560  
 accctcaggg ccctgaaccg tcgtctctg gctgctctc tgcccttga gggaggaagt  
 1620  
 cctgggaccc agggagggga ggggcctttg tctaggaag ggactggtag ggaagggacg  
 1680  
 agtctaggt gagggcaaga tgggaggtca gaggtgacag aagcggtcag gggtagcctg  
 1740  
 gcctccccag gagctgtgga ctcaagttcct gacctctgct ttgggggtcc tgggggtggc  
 1800  
 ttggggtgag tgtagttctg gcctagcagc accctcttgt ggcttgttct agcgtgtatt  
 1860  
 aaaacttgac acacaccac acacaaaaac aaaaacacca aaaaaa  
 1906

<210> 3204

<211> 424

<212> PRT

<213> Homo sapiens

<400> 3204

Met	Ala	Pro	Glu	Glu	Asp	Ala	Gly	Gly	Glu	Ala	Leu	Gly	Gly	Ser	Phe
1			5					10					15		
Trp	Glu	Ala	Gly	Asn	Tyr	Arg	Arg	Thr	Val	Gln	Arg	Val	Glu	Asp	Gly
		20					25					30			
His	Arg	Leu	Cys	Gly	Asp	Leu	Val	Ser	Cys	Phe	Gln	Glu	Arg	Ala	Arg
		35				40					45				
Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Ala	Asp	Trp	Ala	Arg	Lys	Trp
	50				55			60							
Arg	Gly	Thr	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Leu	Glu	Lys	Ala
65				70			75					80			
Trp	His	Ala	Phe	Phe	Thr	Ala	Ala	Glu	Arg	Leu	Ser	Ala	Leu	His	Leu
		85					90					95			
Glu	Val	Arg	Glu	Lys	Leu	Gln	Gly	Gln	Asp	Ser	Glu	Arg	Val	Arg	Ala
		100				105					110				
Trp	Gln	Arg	Gly	Ala	Phe	His	Arg	Pro	Val	Leu	Gly	Gly	Phe	Arg	Glu

```

      115      120      125
Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
      130      135      140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
145      150      155      160
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
      165      170      175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
      180      185      190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
195      200      205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
210      215      220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
225      230      235      240
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
      245      250      255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
      260      265      270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
275      280      285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
290      295      300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
305      310      315      320
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
      325      330      335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
      340      345      350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
      355      360      365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
370      375      380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
385      390      395      400
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
      405      410      415
Asn Tyr Val Glu Cys Val Gly Ala
      420

```

&lt;210&gt; 3205

&lt;211&gt; 1482

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3205

```

nnggagatgg agggaaacctc cccgagcagc ccaccaccca gtgggggtgcg gtcccccccg
60
ggtctggcca agacaccctt atctgctctg ggctgaaac ctcacaacc agcggaatc
120
ctgttgcaac ccacaggaga gccccggagc tatgtggagt ctgtggcacg gacagcggcg
180
gctggacccc gagctcagga ctctgagccc aagagcttta gtgctccagc caccaggcc
240

```

tatggccatg agatacccct gaggaacggg accctgggtg gtcctttgt cccccccagc  
 300  
 cccctctcca ccagcagccc cctcctcagt gctgacagca cttcagtggg gagtttcccc  
 360  
 tcgggagaga gcagtgacca ggggtccccgg acgcccaccc agcctctgtt ggagtctggc  
 420  
 ttccgctcag gcagcctggg acagcccagc ccgtctgccc agagaaacta ccagagctct  
 480  
 tctcctctcc cgactgtggg cagtagctac agcagccccc actactcact tcagcatttc  
 540  
 agtccctctc cggaaagcca ggctcgagct cagttcagtg tggctggcgt ccacacgggtg  
 600  
 cctgggagcc ctcaggcgcg tcacagaaca gtgggcacca acactcccc tagtcttggc  
 660  
 ttccgctggc gggccatcaa tcccagcatg gctgccccca gcagtcccag tttgagccat  
 720  
 caccagatga tgggtccacc aggcactggc ttccatggta gcactgtctc cagccccag  
 780  
 agcagtgcag cgaccacccc ggggagcccc agcctgtgtc ggcacccagc aggggtctac  
 840  
 caggttttctg gcctccacaa caaagtggcc accaccccgg ggagtcccag cctgggcccgg  
 900  
 caccctgggg ctcaccaagg caacctggcc tccggtcttc atagcaatgc aatagccagc  
 960  
 cctggaagcc ccagcctggg ccgtcacctc ggagggtctg gatctgtggt tcccggcagc  
 1020  
 ccctgcttgg accggcatgt ggcctatggc ggctattcta ccccgaggga tcggagaccc  
 1080  
 acactgtccc ggcagagcag tgctctggc taccaggctc cttccacgcc ctccttcct  
 1140  
 gtctcccctg cctactaccc tggcctgagc agccctgcca cctccccgtc accagactcc  
 1200  
 gcagccttcc ggcaaggag cccaacacca gccttgccag agaagcgaag gatgtcagtg  
 1260  
 ggagaccggg caggcagcct cccaactat gccaccatca atgggaaggt gtcttcgcct  
 1320  
 gtcgccagcg gcattgccag tcccagtggg ggcagcaccg tctccttctc ccacactctg  
 1380  
 cccgacttct ccaagtactc catgccagac aacagcccgg agacgcgggc taaagtgaag  
 1440  
 tttgtccagg acacttctaa gtattggtac aagcctaaga tc  
 1482

&lt;210&gt; 3206

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3206

Xaa Glu Met Glu Gly Thr Ser Pro Ser Ser Pro Pro Pro Ser Gly Val  
 1 5 10 15  
 Arg Ser Pro Pro Gly Leu Ala Lys Thr Pro Leu Ser Ala Leu Gly Leu  
 20 25 30  
 Lys Pro His Asn Pro Ala Asp Ile Leu Leu His Pro Thr Gly Glu Pro

```

      35      40      45
Arg Ser Tyr Val Glu Ser Val Ala Arg Thr Ala Val Ala Gly Pro Arg
  50      55      60
Ala Gln Asp Ser Glu Pro Lys Ser Phe Ser Ala Pro Ala Thr Gln Ala
  65      70      75      80
Tyr Gly His Glu Ile Pro Leu Arg Asn Gly Thr Leu Gly Gly Ser Phe
      85      90      95
Val Ser Pro Ser Pro Leu Ser Thr Ser Ser Pro Ile Leu Ser Ala Asp
      100      105      110
Ser Thr Ser Val Gly Ser Phe Pro Ser Gly Glu Ser Ser Asp Gln Gly
      115      120      125
Pro Arg Thr Pro Thr Gln Pro Leu Leu Glu Ser Gly Phe Arg Ser Gly
      130      135      140
Ser Leu Gly Gln Pro Ser Pro Ser Ala Gln Arg Asn Tyr Gln Ser Ser
  145      150      155      160
Ser Pro Leu Pro Thr Val Gly Ser Ser Tyr Ser Ser Pro Asp Tyr Ser
      165      170      175
Leu Gln His Phe Ser Ser Ser Pro Glu Ser Gln Ala Arg Ala Gln Phe
      180      185      190
Ser Val Ala Gly Val His Thr Val Pro Gly Ser Pro Gln Ala Arg His
      195      200      205
Arg Thr Val Gly Thr Asn Thr Pro Pro Ser Pro Gly Phe Gly Trp Arg
      210      215      220
Ala Ile Asn Pro Ser Met Ala Ala Pro Ser Ser Pro Ser Leu Ser His
  225      230      235      240
His Gln Met Met Gly Pro Pro Gly Thr Gly Phe His Gly Ser Thr Val
      245      250      255
Ser Ser Pro Gln Ser Ser Ala Ala Thr Thr Pro Gly Ser Pro Ser Leu
      260      265      270
Cys Arg His Pro Ala Gly Val Tyr Gln Val Ser Gly Leu His Asn Lys
      275      280      285
Val Ala Thr Thr Pro Gly Ser Pro Ser Leu Gly Arg His Pro Gly Ala
      290      295      300
His Gln Gly Asn Leu Ala Ser Gly Leu His Ser Asn Ala Ile Ala Ser
  305      310      315      320
Pro Gly Ser Pro Ser Leu Gly Arg His Leu Gly Gly Ser Gly Ser Val
      325      330      335
Val Pro Gly Ser Pro Cys Leu Asp Arg His Val Ala Tyr Gly Gly Tyr
      340      345      350
Ser Thr Pro Glu Asp Arg Arg Pro Thr Leu Ser Arg Gln Ser Ser Ala
      355      360      365
Ser Gly Tyr Gln Ala Pro Ser Thr Pro Ser Phe Pro Val Ser Pro Ala
      370      375      380
Tyr Tyr Pro Gly Leu Ser Ser Pro Ala Thr Ser Pro Ser Pro Asp Ser
  385      390      395      400
Ala Ala Phe Arg Gln Gly Ser Pro Thr Pro Ala Leu Pro Glu Lys Arg
      405      410      415
Arg Met Ser Val Gly Asp Arg Ala Gly Ser Leu Pro Asn Tyr Ala Thr
      420      425      430
Ile Asn Gly Lys Val Ser Ser Pro Val Ala Ser Gly Met Ser Ser Pro
      435      440      445
Ser Gly Gly Ser Thr Val Ser Phe Ser His Thr Leu Pro Asp Phe Ser
      450      455      460
Lys Tyr Ser Met Pro Asp Asn Ser Pro Glu Thr Arg Ala Lys Val Lys

```

465 470 475 480

Phe Val Gln Asp Thr Ser Lys Tyr Trp Tyr Lys Pro Lys Ile

485 490

<210> 3207

<211> 495

<212> DNA

<213> Homo sapiens

<400> 3207

ngcgggacgc gcagcgctat ggcagagggc agcgggggaag tggtcgcagt gtctgcgacc

60

ggggctgccac acggcctcaa caatggggca ggcggggacct cggcgacgac ctgcaacccg

120

ctgtcgcgca agctgcataa gatcctggag acgcggtctgg acaacgacaa ggagatgtta

180

gaagctctca aggcactttc aacctttttt gttgaaaata gtctgcggac tcgaagaaat

240

ttacgtggag atattgaacg taaaagttaa gccatcaatg aagaatttgt aagcattttc

300

aagggaagtga aggaggaact tgaaagcata agcgaagatg ttcaagcaat gagcaactgt

360

tgtcaagata tgacaagtcg cctacaggca gcaaaggaac agactcaaga tttaatagta

420

aataccacta agcttcaatc tgaaagccaa aaattagaga taagagctca agttgcagat

480

gccttcttat ccaag

495

<210> 3208

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3208

Met Leu Glu Ala Leu Lys Ala Leu Ser Thr Phe Phe Val Glu Asn Ser

1 5 10 15

Leu Arg Thr Arg Arg Asn Leu Arg Gly Asp Ile Glu Arg Lys Ser Leu

20 25 30

Ala Ile Asn Glu Glu Phe Val Ser Ile Phe Lys Glu Val Lys Glu Glu

35 40 45

Leu Glu Ser Ile Ser Glu Asp Val Gln Ala Met Ser Asn Cys Cys Gln

50 55 60

Asp Met Thr Ser Arg Leu Gln Ala Ala Lys Glu Gln Thr Gln Asp Leu

65 70 75 80

Ile Val Asn Thr Thr Lys Leu Gln Ser Glu Ser Gln Lys Leu Glu Ile

85 90 95

Arg Ala Gln Val Ala Asp Ala Phe Leu Ser Lys

100 105

<210> 3209

<211> 346

<212> DNA

<213> Homo sapiens

&lt;400&gt; 3209

tgttcctcta ggtggggcag gtagggggtc cagcttcctg cttgctgggtg gttcagggtca  
60  
tgcgtccagc cttgtccctt ctgacctggg ccctaccac ggggaaatgt tcccatagca  
120  
gaagaatcag cccacacagt caggggtgtg ttagtgggga acgggctctg ggctcctgtg  
180  
ggaaccaggg accccctatc ttggtaccgg tcattggatg tatccccagc tcatgcctgt  
240  
gtctgtcttg gccctgtgg tcacctgtg ttcattcttc tcccagccat ggcctctcaa  
300  
actgggggtt tcgtctccct atgagggggg cctgggtatgt acgcgt  
346

&lt;210&gt; 3210

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3210

Met	Arg	Pro	Ala	Leu	Ser	Leu	Leu	Thr	Trp	Ala	Leu	Pro	Thr	Gly	Lys
1				5					10					15	
Cys	Ser	His	Ser	Arg	Arg	Ile	Ser	Pro	Thr	Val	Gln	Gly	Cys	Val	Ser
			20					25					30		
Gly	Glu	Arg	Ala	Leu	Gly	Ser	Cys	Gly	Asn	Gln	Gly	Pro	Pro	Ile	Leu
			35				40					45			
Val	Pro	Val	Ile	Gly	Cys	Ile	Pro	Ser	Ser	Cys	Leu	Cys	Leu	Ser	Trp
	50					55					60				
Pro	Val	Trp	Ser	Pro	Cys	Val	His	Leu	Ser	Pro	Ser	His	Gly	Leu	Ser
65					70					75				80	
Asn	Trp	Gly	Phe	Arg	Leu	Pro	Met	Arg	Gly	Ser	Trp	Tyr	Val	Arg	
				85					90					95	

&lt;210&gt; 3211

&lt;211&gt; 1728

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3211

tccggaaata taaagttgag ctaccagttt tcagaaatcc atgaagactc taccgtctgc  
60  
tggacaaaag attccaagtc gatagcccag gccaaagaaa ggcaggggga caactccagt  
120  
gtttccttgg ccattctgca agccagtccg aaggaccagg gactctatta ctgtgcac  
180  
aagaacagct acggaaaagt gactgtgtaa tttaacctca cagctgaagt tctcaaacag  
240  
ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt  
300  
caaagaagac ttcctccatg acagctactt tgggggccgc ctgcgtgggc agatcgccac  
360  
ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca  
420



cggcctcatg cctgtcttca aacctggcca tgcctgtgtg cttaaggtgc acaatgccat  
 480  
 tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tcgctgccca  
 540  
 ggaatgctat gttcaaaata ctgccaggta ttatgccaaag atctacgctg ctgaagcaca  
 600  
 gcctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcgggc  
 660  
 tgagaacaat atcccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta  
 720  
 ttccatcagg gatgggaaag aaataaactt cttgagaaga gaatcagaag ctggtcagaa  
 780  
 atgttgcacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tgggtgacgga  
 840  
 catgcaaggt gtaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggta  
 900  
 caagggattt aaaggcaact gttccatgac cttcattgat cagtttaaag cactacacca  
 960  
 gtgtaacaag tattgcaaaa tgctgggact gaaatccctt caaaacaaca accagaaaca  
 1020  
 gaagcagccg agcattggga aaagcaaagt tcaaacaaac tctatgacag taaagaaggc  
 1080  
 agggcctgag accccaggcg aaaagaaaac ctaacgtccc cgggtaacct aatggccact  
 1140  
 ggctagcagc acacaatctc gccagggaaa atctgaggcc acacaggaga gaatatacag  
 1200  
 cctgcagaga gtgcgtggca atccttactc ccagccgact gtgcgccaag atgcttctaa  
 1260  
 acccatcacc tgctgtcttc actcaaatga tttcagaaca ggatttgca ccaggtttat  
 1320  
 ggggagattg aatcaacgat tgggtctcaa gacagtccat tctttatata catgtttagc  
 1380  
 attttacca acctcacatc atgtgtatat ttgtgtattt gcacatgggt gtgctgtcga  
 1440  
 ggacctggtg ctgagaagag tctgttcaca gccaaaattc ttcccactgt cattcctaac  
 1500  
 ctgggatttc tagacacatc ctgctgtgat gtaaacagaa atcacgaatt cgctcactgg  
 1560  
 atcaagtgtg tccactggtg tctaatacgc tattgttgcc ggaggtgggt tctgtgacgt  
 1620  
 gaagccattt cccatcatc aacagccagt tacaattttc tgtttaatta aattcatatt  
 1680  
 taaacaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1728

&lt;210&gt; 3212

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3212

Ser Gly Asn Ile Lys Leu Ser Tyr Gln Phe Ser Glu Ile His Glu Asp  
 1 5 10 15  
 Ser Thr Val Cys Trp Thr Lys Asp Ser Lys Ser Ile Ala Gln Ala Lys

```

                20                25                30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
                35                40                45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
                50                55                60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
65                70                75                80
Leu Ser Ser His Thr Glu Tyr
                85

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&lt;210&gt; 3213

&lt;211&gt; 348

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3213

```

acgcgtgaag gggaagcggc ggggtagtaa cagattatgg gcaacagtcc ttttaattaa
60
tctaccgtca tcatggctaa tgaggactgt cccaaggctg ctgatagtcc tttttcatca
120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agttttaaag ctcacgggct ggttttggct
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
300
gttgtagcga ttctaggaat tgaagcagga atctttcaga tacttcta
348

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&lt;210&gt; 3214

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3214

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Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
 1                5                10                15
Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
                20                25                30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
                35                40                45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
                50                55                60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
65                70                75                80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
                85                90

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&lt;210&gt; 3215

&lt;211&gt; 597

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3215

acgcgtgcgc gctcccgcca ggagagggcc agccggcccc ggcttaccat cttgaacgtg  
 60  
 tgcaacactg gggacaagat ggtggagtgc cagctggaga cgcacaacca caagatgggtg  
 120  
 accttcaagt tcgacttgga cggggacgca cccgatgaaa ttgccacgta tatgggtggag  
 180  
 catgacttta tcctgcaggc cgagcgggaa acgttcatcg agcagatgaa ggatgtcatg  
 240  
 gacaaggcag aggacatgct cagcgaggac acagacgccg accgtggctc cgacccaggg  
 300  
 accagccccg cacacctcag cacctgcggc ctgggcaccg gggaggagag ccgacaatcc  
 360  
 caagccaacg ccccggtgta tcagcagaac gtcctgcaca ccgggaagag gtgggttcac  
 420  
 atctgtccgg tgcttgagcc ccccgcccc gagggccctt gaatcttcgc cccacttcc  
 480  
 tctaagctcc ctgccgccag aagccagcca agattcagcg ccctataaag accagctgtc  
 540  
 ctcgaaggaa caaccagct ttctagccag tcagcagctc ctgggccagg cgggccc  
 597

&lt;210&gt; 3216

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3216

Thr	Arg	Ala	Arg	Ser	Arg	Gln	Glu	Arg	Ala	Ser	Arg	Pro	Arg	Leu	Thr
1				5					10					15	
Ile	Leu	Asn	Val	Cys	Asn	Thr	Gly	Asp	Lys	Met	Val	Glu	Cys	Gln	Leu
		20					25					30			
Glu	Thr	His	Asn	His	Lys	Met	Val	Thr	Phe	Lys	Phe	Asp	Leu	Asp	Gly
	35					40					45				
Asp	Ala	Pro	Asp	Glu	Ile	Ala	Thr	Tyr	Met	Val	Glu	His	Asp	Phe	Ile
	50				55					60					
Leu	Gln	Ala	Glu	Arg	Glu	Thr	Phe	Ile	Glu	Gln	Met	Lys	Asp	Val	Met
65				70				75						80	
Asp	Lys	Ala	Glu	Asp	Met	Leu	Ser	Glu	Asp	Thr	Asp	Ala	Asp	Arg	Gly
		85				90						95			
Ser	Asp	Pro	Gly	Thr	Ser	Pro	Pro	His	Leu	Ser	Thr	Cys	Gly	Leu	Gly
		100				105						110			
Thr	Gly	Glu	Glu	Ser	Arg	Gln	Ser	Gln	Ala	Asn	Ala	Pro	Val	Tyr	Gln
	115					120						125			
Gln	Asn	Val	Leu	His	Thr	Gly	Lys	Arg	Trp	Phe	Ile	Ile	Cys	Pro	Val
	130				135					140					
Pro	Glu	Pro	Pro	Ala	Pro	Glu	Gly	Pro							
145					150										

&lt;210&gt; 3217

&lt;211&gt; 2570

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3217

ggggtcaaag ctgcagta cccttggggt gttgtacaag tggaaaatga aaaccactgt  
60  
gactttgtaa agctgcggga aatgctcatt tgtacaaata tggaggacct gcgagagcag  
120  
accatacca ggactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca  
180  
gatgtgggccc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat  
240  
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatgtt tgtgcagcga  
300  
gtaaaggaga aagaagccat attgaaagaa gctgagagag agctacaggc caaatgtgag  
360  
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg  
420  
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag  
480  
tcctttcttg caacaggcag caacctgagt aaggacaagg accataagaa ctccaatttt  
540  
ttgtaaaaca gaagttccag agcacagaag gtcacatca caagcaaact ttattaaaaa  
600  
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga  
660  
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag  
720  
ccagagtga tgaactaca agttgagcat ctctaattca aaaatctgaa atccagaagc  
780  
ttcaaaatct gaatcttttt gagcactgac ttgacccac aagtggaaaa ttccccaccc  
840  
gacacctttg ctttctgatg gttcagttta aacagatttt gtttcttgca caaaattttt  
900  
gtataaatta ctttcaggct atatgtataa ggtggatgtg aaacatgaat tatgtaatta  
960  
gagtcgggct ccgttggtga tatgcagata ttccaaacct gaaatccaaa acacttctgg  
1020  
tccctagcat ttggataag ggatactcag cttgtaccta tatattcata tatattcact  
1080  
gttgtagtaa atgtttaagt tgctgttctg tgatgaatct aaatcttttc tcttgctacc  
1140  
aagctattgt cactgcagtg cattatacca aagagcgaag tcagtgccac tgaaaataca  
1200  
gaaccatta atatcgtggc tatctgatta catttatatt ccaagatgaa ctttttttta  
1260  
tatatgctaa aaattttggg gaatatgttt tgggatgtat tatggagcta aaactctaac  
1320  
ctcttaatag ttttatagaa cttaaaaatt ttttatacaa ttaccaatt ggtgatatga  
1380  
tcttaagctt ttgtgtcaga ttatttaata tgatgacttc atgctttatt atgccttatt  
1440  
atggctgacg tattactgtg gtgaaacaaa atatctttaa aagttaaaac atccagatat  
1500  
ataagctatt ttttcctaag gataaagtac ctttgagcat gagtgtatca cagctttcat  
1560  
taggaaaact tttcattaca tacttgttta aactctgtct tccagggtaa aaataataag  
1620

gttgaatcat tttattaaaa atacttttta agaaaataac tatgaacatc tgaatattaa  
 1680  
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 1800  
 tcattttttg tacttgaata ttctaaataa aactgacatt tactcttgac aaataaaaca  
 1860  
 tatatttact aaaaaaaaaa aaaaaaaacc tcgtgccgaa ttcggagagt ctaggaatac  
 1920  
 tgttaaagga aaaaaaagag gggggaagat caggtcatac tatctactct cctcatctct  
 1980  
 aacagctcag gatctcttag cattttaatt agatgtaatt gtttgtcttt aactgtcaaa  
 2040  
 aagtttggtt ctgtgtctgt gttttaataa gacgagagga cgagcgattg aggtgtatgg  
 2100  
 agagaaaaca gacctaatgc tccttgttcc tagagtagag tggagggagg gtggcctaag  
 2160  
 agttgagctc tcggaactgc atgctgctgg acagtatcac tgtctttcct agatggcagt  
 2220  
 cactgaattc cattttttca aggtaatttc ttgtgcctct aatagcccaa gaatgggagg  
 2280  
 ttgatacagat ctgacatgat tccttctgt tctgaactgt ggggtgtgca catctctgct  
 2340  
 tgagtcaggt ttgagtagag gcttagagac agttgggtga gaacaaccaa aatcttatca  
 2400  
 tggctcagct cataatcatt agggggaact ctagccaaat ggtttaactt ctgcctgtgg  
 2460  
 aactggggat tgggtgggca ggaaaagggtg atatccattc tttctgataa ctagatgggtg  
 2520  
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 2570

<210> 3218

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3218

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Glu	Asn	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Glu	Met	Leu	Ile	Cys	Thr
			20					25					30		
Asn	Met	Glu	Asp	Leu	Arg	Glu	Gln	Thr	His	Thr	Arg	His	Tyr	Glu	Leu
		35					40					45			
Tyr	Arg	Arg	Cys	Lys	Leu	Glu	Glu	Met	Gly	Phe	Thr	Asp	Val	Gly	Pro
		50				55					60				
Glu	Asn	Lys	Pro	Val	Ser	Val	Gln	Glu	Thr	Tyr	Glu	Ala	Lys	Arg	His
65					70					75				80	
Glu	Phe	His	Gly	Glu	Arg	Gln	Arg	Lys	Glu	Glu	Glu	Met	Lys	Gln	Met
			85						90					95	
Phe	Val	Gln	Arg	Val	Lys	Glu	Lys	Glu	Ala	Ile	Leu	Lys	Glu	Ala	Glu
			100					105					110		
Arg	Glu	Leu	Gln	Ala	Lys	Phe	Glu	His	Leu	Lys	Arg	Leu	His	Gln	Glu

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<210> 3219
<211> 1241
<212> DNA
<213> Homo sapiens
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120
gagcggggaga cagacatcct ggacgatgaa ttgccaaacc aggatgggtca cagtgcgggc
180
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240
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360
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480
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600
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720
gagttcccgc gagcagcctc ccagcaggag attgaacagt ccatcgaaac actcaatatg
780
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840
ccccgggctt ggccaggggc ttctccactc tcctcccagc ccctctctgg atcctcccgt
900
cagtcccata cactgaccca gtccagatct ggctatatcc ccagtgggca ttcgttggga
960
acccttgagc cagccccacg ggctctctg gagtctgtcc ctctggcag gtcttactca
1020
ccttatgact atcagccatg tttggctggg cctaaccagg atttccattc aaagagccca
1080
gcctcttctt ccttgctgc cttccttcg accaccaca gcctccagg gcctcagcaa
1140

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ccccagcct ctctccctgg cctcactgct cagcctctgc tctcaccaaa ggaagcgact  
 1200  
 tcagaccct cccggactcc agaggaggag ccattgaatt c  
 1241

<210> 3220

<211> 413

<212> PRT

<213> Homo sapiens

<400> 3220

Ala	Arg	His	Val	Pro	His	Pro	Ala	Pro	Gln	Val	Pro	Pro	Ser	Arg	Gly
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Leu	Gly	Cys	Ala	Ser	Ser	Gly	Arg	His	Val	Val	Pro	Ala	Gln	Val	His
			20				25					30			
Val	Asn	Gly	Gly	Xaa	Val	Thr	Ser	Glu	Arg	Glu	Thr	Asp	Ile	Leu	Asp
		35					40					45			
Asp	Glu	Leu	Pro	Asn	Gln	Asp	Gly	His	Ser	Ala	Gly	Ser	Met	Gly	Thr
	50					55					60				
Leu	Ser	Ser	Leu	Asp	Gly	Val	Thr	Asn	Ile	Ser	Glu	Gly	Gly	Tyr	Pro
65				70						75				80	
Glu	Ala	Leu	Ser	Pro	Leu	Thr	Asn	Gly	Leu	Asp	Lys	Ser	Tyr	Pro	Met
				85					90					95	
Glu	Pro	Met	Val	Asn	Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Ser	Ala	Ser	Arg
			100					105					110		
Ala	Gly	Pro	Ala	His	Ala	Gly	His	Thr	Ala	Pro	Met	Arg	Pro	Ser	Tyr
	115					120						125			
Ser	Ala	Gln	Glu	Gly	Leu	Ala	Gly	Tyr	Gln	Arg	Glu	Gly	Pro	His	Pro
	130					135					140				
Ala	Trp	Pro	Gln	Pro	Val	Thr	Thr	Ser	His	Tyr	Ala	His	Asp	Pro	Ser
145				150						155				160	
Gly	Met	Phe	Arg	Ser	Gln	Ser	Phe	Ser	Glu	Ala	Glu	Pro	Gln	Leu	Pro
				165					170					175	
Pro	Ala	Pro	Val	Arg	Gly	Gly	Ser	Ser	Arg	Glu	Ala	Val	Gln	Arg	Gly
			180					185					190		
Leu	Asn	Ser	Trp	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro	Arg	Pro
	195					200							205		
Pro	Pro	Arg	Gln	Gln	Glu	Arg	Ala	His	Leu	Glu	Ser	Leu	Val	Ala	Ser
	210					215					220				
Arg	Pro	Ser	Pro	Gln	Pro	Leu	Ala	Glu	Thr	Pro	Ile	Pro	Ser	Leu	Pro
225				230						235				240	
Glu	Phe	Pro	Arg	Ala	Ala	Ser	Gln	Gln	Glu	Ile	Glu	Gln	Ser	Ile	Glu
				245					250					255	
Thr	Leu	Asn	Met	Leu	Met	Leu	Asp	Leu	Glu	Pro	Ala	Ser	Ala	Ala	Ala
				260				265					270		
Pro	Leu	His	Lys	Ser	Gln	Ser	Val	Pro	Gly	Ala	Trp	Pro	Gly	Ala	Ser
	275						280					285			
Pro	Leu	Ser	Ser	Gln	Pro	Leu	Ser	Gly	Ser	Ser	Arg	Gln	Ser	His	Pro
	290					295					300				
Leu	Thr	Gln	Ser	Arg	Ser	Gly	Tyr	Ile	Pro	Ser	Gly	His	Ser	Leu	Gly
305				310						315				320	
Thr	Pro	Glu	Pro	Ala	Pro	Arg	Ala	Ser	Leu	Glu	Ser	Val	Pro	Pro	Gly
				325					330					335	
Arg	Ser	Tyr	Ser	Pro	Tyr	Asp	Tyr	Gln	Pro	Cys	Leu	Ala	Gly	Pro	Asn

			340					345					350		
Gln	Asp	Phe	His	Ser	Lys	Ser	Pro	Ala	Ser	Ser	Ser	Leu	Pro	Ala	Phe
		355					360					365			
Leu	Pro	Thr	Thr	His	Ser	Pro	Pro	Gly	Pro	Gln	Gln	Pro	Pro	Ala	Ser
		370					375				380				
Leu	Pro	Gly	Leu	Thr	Ala	Gln	Pro	Leu	Leu	Ser	Pro	Lys	Glu	Ala	Thr
385					390					395				400	
Ser	Asp	Pro	Ser	Arg	Thr	Pro	Glu	Glu	Glu	Pro	Leu	Asn			
				405					410						

&lt;210&gt; 3221

&lt;211&gt; 1585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3221

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ccccaacgct cctgcaccgc gcggagatgg cacatccagg ccaccggtgg ggtcgagccc
120
gcaggttgga aggagatgcg atgccacctg cgcgccaacg gctacctgtg caagtaccag
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360
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420
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480
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acccttgggg ggaccggggg gccaccagg cgcccgccgg ccactgcaac cagccccgtg
600
ccgcagagaa catggccaat cagggtcgac gagaagctgg gagagacacc acttgtccct
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gaacaagaca attcagtaac atctattcct gagattcctc gatggggatc acagagcacg
720
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1140

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<210> 3222

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3222

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Trp	Val	Glu	Glu	Pro	Gln	Arg	Ser	Cys	Thr	Ala	Arg	Arg	Trp	His	Ile
			20					25					30		
Gln	Ala	Thr	Gly	Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys
			35					40				45			
His	Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu
	50				55						60				
Cys	Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala
65				70						75					80
Pro	Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr
			85					90						95	
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys
			100					105					110		
Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val
			115				120					125			
Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu
	130				135						140				
Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala
145				150						155					160
Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly
			165					170						175	
Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro
			180					185					190		
Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg
			195				200					205			
Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn
	210				215						220				
Ser	Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr
225				230						235				240	
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<210> 3223
<211> 985
<212> DNA
<213> Homo sapiens
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<210> 3224

<211> 224  
 <212> PRT  
 <213> Homo sapiens

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 Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys  
 35 40 45  
 Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala  
 50 55 60  
 Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu  
 65 70 75 80  
 Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys  
 85 90 95  
 Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg  
 100 105 110  
 Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu  
 115 120 125  
 Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu  
 130 135 140  
 Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln  
 145 150 155 160  
 Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe  
 165 170 175  
 Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln  
 180 185 190  
 Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu  
 195 200 205  
 Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro  
 210 215 220

<210> 3225  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

<400> 3225  
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 180  
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 300  
 aagtgaacc acagcctcaa cccacacaga ggatggaacc accttctgca gctaaaaata  
 360  
 accacaccgc ctttgaggtg agccacccaa gatgcaggtg gggctgtatg aaactccacg  
 420

aacatgggat gagtttcatt ttcagggttc cgaggggccca tgagtgggtac caagatccct  
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 506

<210> 3226

<211> 137

<212> PRT

<213> Homo sapiens

<400> 3226

Met	Lys	Val	Ile	Phe	Pro	Lys	Leu	Lys	Gln	Arg	Asn	Ile	Leu	Asn	Gly
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Leu	Arg	Pro	Cys	Thr	Phe	Phe	Ile	Gln	Glu	Ala	Thr	Lys	Asn	Ser	Ala
			20					25					30		
Cys	Phe	Pro	Val	Pro	Lys	Met	Pro	Val	Pro	Cys	Ala	Leu	Gly	Glu	Glu
		35					40					45			
Leu	Val	Pro	Cys	His	Arg	Gly	Thr	Gly	Pro	Ala	Val	Val	Trp	Pro	Ala
	50					55					60				
Gln	Pro	Gln	Gln	Gly	Glu	Val	Glu	Pro	Gln	Pro	Gln	Pro	Thr	Gln	Arg
65				70					75					80	
Met	Glu	Pro	Pro	Ser	Ala	Ala	Lys	Asn	Asn	His	Thr	Ala	Phe	Glu	Val
				85					90					95	
Ser	His	Pro	Arg	Cys	Arg	Trp	Gly	Cys	Met	Lys	Leu	His	Glu	His	Gly
			100					105					110		
Met	Ser	Phe	Ile	Phe	Arg	Val	Pro	Arg	Gly	His	Glu	Trp	Tyr	Gln	Asp
		115					120					125			
Pro	Trp	Arg	Cys	Pro	Trp	Phe	Pro	Met							
		130				135									

<210> 3227

<211> 1623

<212> DNA

<213> Homo sapiens

<400> 3227

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 180  
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 240  
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 300  
 ggccaggtga ccctggtccc cgaggagcct gaggacatgt ggcacactta caacctcggt  
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 420  
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 480  
 ttcgactctc aagcctgcc a gctgcgggtt aaggggacca acatccaaga gaatgagtat  
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gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc  
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 720  
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 1623

&lt;210&gt; 3228

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3228

Met Lys Leu Val Arg Lys Asn Ile Glu Lys Asp Asn Ala Gly Gln Val  
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 Thr Leu Val Pro Glu Glu Pro Glu Asp Met Trp His Thr Tyr Asn Leu  
 20 25 30  
 Val Gln Val Gly Asp Ser Leu Arg Ala Ser Thr Ile Arg Lys Val Gln  
 35 40 45  
 Thr Glu Ser Ser Thr Gly Ser Val Gly Ser Asn Arg Val Arg Thr Thr  
 50 55 60  
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<210> 3229
<211> 1008
<212> DNA
<213> Homo sapiens
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180
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<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

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Cys	Ser	Asp	Gly	Phe	Ala	Phe	Pro	Gln	Tyr	Pro	Ile	Lys	Pro	Tyr	His
			20					25					30		
Leu	Lys	Arg	Ile	His	Arg	Ala	Val	Leu	Arg	Gly	Asn	Leu	Glu	Glu	Leu
			35				40					45			
Lys	Tyr	Leu	Leu	Leu	Thr	Tyr	Tyr	Asp	Ile	Asn	Lys	Arg	Asp	Arg	Lys
	50					55					60				
Glu	Arg	Thr	Ala	Leu	His	Leu	Ala	Cys	Ala	Thr	Gly	Gln	Pro	Glu	Met
65					70					75					80
Val	His	Leu	Leu	Val	Ser	Arg	Arg	Cys	Glu	Leu	Asn	Leu	Cys	Asp	Arg
				85					90					95	
Glu	Asp	Arg	Thr	Pro	Leu	Ile	Lys	Ala	Val	Gln	Leu	Arg	Gln	Glu	Ala
			100					105					110		
Cys	Ala	Thr	Leu	Leu	Leu	Gln	Asn	Gly	Ala	Asp	Pro	Asn	Ile	Thr	Asp
		115					120					125			
Val	Phe	Gly	Arg	Thr	Ala	Leu	His	Tyr	Ala	Val	Tyr	Asn	Glu	Asp	Thr
	130					135					140				
Ser	Met	Ile	Glu	Lys	Leu	Leu	Ser	His	Gly	Thr	Asn	Ile	Glu	Glu	Cys

145		150		155		160									
Ser	Lys	Asn	Glu	Tyr	Gln	Pro	Leu	Leu	Leu	Ala	Val	Ser	Arg	Arg	Lys
		165				170								175	
Val	Lys	Met	Val	Glu	Phe	Leu	Leu	Lys	Lys	Lys	Ala	Asn	Val	Asn	Ala
		180				185							190		
Ile	Asp	Tyr	Leu	Gly	Arg	Ser	Ala	Leu	Ile	Leu	Ala	Val	Thr	Leu	Gly
	195					200						205			
Glu	Lys	Asp	Ile	Val	Ile	Leu	Leu	Leu	Gln	His	Asn	Ile	Asp	Val	Phe
	210					215					220				
Ser	Arg	Asp	Val	Tyr	Gly	Lys	Leu								
225					230										

&lt;210&gt; 3231

&lt;211&gt; 1367

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3231

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240
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1080

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<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

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Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly
			20					25					30		
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr
		35					40					45			
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val
	50					55					60				
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr
65					70					75				80	
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala
			85						90					95	
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr
		100						105					110		
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser
		115					120					125			
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe
	130						135					140			
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu
145					150					155				160	
Gly	Phe	Asn	Tyr	Ile	Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly
			165					170						175	
Asn	Leu	Val	Gly	His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met
		180						185					190		
Asp	Leu	Gly	Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg
	195					200						205			
Trp	Leu	Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro
	210					215						220			
Ala	Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His
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Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln					
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<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens

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 900  
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 975

<210> 3234

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3234

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Glu	Asn	Gly	Lys	Thr	Val	Val	Tyr	Leu	Val	Ala	Phe	His	Leu	Phe	Phe
		20						25					30		
Val	Met	Phe	Val	Trp	Ser	Tyr	Trp	Met	Thr	Ile	Phe	Thr	Ser	Pro	Ala
	35						40					45			
Ser	Pro	Ser	Lys	Glu	Phe	Tyr	Leu	Ser	Asn	Ser	Glu	Lys	Glu	Arg	Tyr
	50					55					60				
Glu	Lys	Glu	Phe	Ser	Gln	Glu	Arg	Gln	Gln	Glu	Ile	Leu	Arg	Arg	Ala
65				70					75				80		
Ala	Arg	Ala	Leu	Pro	Ile	Tyr	Thr	Thr	Ser	Ala	Ser	Lys	Thr	Ile	Arg

				85						90					95				
Tyr	Cys	Glu	Lys	Cys	Gln	Leu	Ile	Lys	Pro	Asp	Arg	Ala	His	His	Cys				
				100						105				110					
Ser	Ala	Cys	Asp	Ser	Cys	Ile	Leu	Lys	Met	Asp	His	Pro	Cys	Pro	Trp				
		115					120					125							
Val	Asn	Asn	Cys	Val	Gly	Phe	Ser	Asn	Tyr	Lys	Phe	Phe	Leu	Leu	Phe				
		130				135					140								
Leu	Leu	Tyr	Ser	Leu	Leu	Tyr	Cys	Leu	Phe	Val	Ala	Ala	Gln	Phe					
145					150					155									

&lt;210&gt; 3235

&lt;211&gt; 551

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3235

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ntggaaactg agcttcaaac atataagcat tctcgtcagg ggctagatga aatgtacaat
60
gaagccagaa ggcagcttcg agatgaatct cagttacgac aggatgtaga gaatgagcta
120
gcagtacaag ttagtatgaa gcatgagatt gaacttgcca tgaagttgct ggagaaagat
180
atccatgaga aacaagatac tctgataggc cttcgacaac aactagagga agttaagca
240
attaacatag agatgtatca aaagttgcag gggtctgaag atggcttgaa agaaaaaat
300
gaaataattg cccgactaga agaaaaaacc aataaaatta ctgcagccat gaggcagctg
360
gaacaaagat tgcagcaagc agagaaggcg caaatggaag ctgaagatga ggatgagaaa
420
tatctacaag aatgtctcag taaatctgat agtctgcaga aacaaatctc ccaaaggag
480
aaacagctgg tgcaactgga aactgacttg aagattgaga aggaatggag gcagactttg
540
caggaagatc t
551

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&lt;210&gt; 3236

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3236

Xaa	Glu	Thr	Glu	Leu	Gln	Thr	Tyr	Lys	His	Ser	Arg	Gln	Gly	Leu	Asp				
1				5					10					15					
Glu	Met	Tyr	Asn	Glu	Ala	Arg	Arg	Gln	Leu	Arg	Asp	Glu	Ser	Gln	Leu				
			20					25				30							
Arg	Gln	Asp	Val	Glu	Asn	Glu	Leu	Ala	Val	Gln	Val	Ser	Met	Lys	His				
		35				40					45								
Glu	Ile	Glu	Leu	Ala	Met	Lys	Leu	Leu	Glu	Lys	Asp	Ile	His	Glu	Lys				
	50				55				60										
Gln	Asp	Thr	Leu	Ile	Gly	Leu	Arg	Gln	Gln	Leu	Glu	Glu	Val	Lys	Ala				
65				70				75				80							
Ile	Asn	Ile	Glu	Met	Tyr	Gln	Lys	Leu	Gln	Gly	Ser	Glu	Asp	Gly	Leu				

```

<400> 3237
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60
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120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagcccct ggtggagaag
180
aagcgacgcg cgcggatcaa cgagagtctt caggagttgc ggctgctgct ggcggggcgc
240
gaggtgcagg ccaagctgga gaacgccgaa gtgctggagc tgacgggtgcg gcgggtccag
300
ggtgtgctgc gggggccgggc gcgcgagcgc gaggcagctgc aggcggaagc gagcgagcgc
360
ttcgctgccg gctacatcca gtgcatgcac gaggtgcaca cgttcgtgtc cacgtgccag
420
gccatcgacg ctaccgtcgc tgccgagctc ctgaaccatc tgctcgagtc catgccgctg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcgggggc acctagagcc
540
cctggacgga gtggctggcc tgcggggggc gctccgggat ccccaatacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgacctg gaggaggccc ctgaggctga actgagtcag
660
gctcctgctg agggggccga cttggtgcc gcagccctgg gcagcctgac cacagcccaa
720
attgcccgga gtgtctggag gccttgggtga ccaatgccag ccagagtcct gcgggggtgg
780
gccccgccct ccctggatct cctccctcct ccagggggtt .cagatgtggt ggggtagggc
840
cctggaagtc tcccaggtct tcctccctc ctctgatgga tggcttgagc ggagccccct
900
ggtaaccagc ccagtcaggc ccagccccg tttcttaaga aacttttagg gaccctgcag
960
ctctggagtg ggtggagggg gggagctacg ggcaggagga agaattttgt agagctgcca
1020

```

gcgctctccc aggttcaccc acccaggctt caccagccct gtgcgggctc tgggggcaga  
 1080  
 ggtggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa acaaaagctt  
 1140  
 gaacttgcca cttcagcggg gagatgagag gcaggtgcac tcagctgcac tgcccagagc  
 1200  
 tgtgatgctc tgtacatctt gttttagca cacttgagtt tgtgtattcc attgacatca  
 1260  
 aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg  
 1320  
 acg  
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

Xaa	Leu	Gly	Cys	Asp	Leu	Pro	Arg	Arg	Gly	Val	Cys	Thr	Lys	Ala	Leu
1				5					10					15	
Gly	Ala	Gly	Leu	Arg	Ala	Leu	Trp	Thr	Met	Ala	Pro	Pro	Ala	Ala	Pro
			20					25					30		
Gly	Arg	Asp	Arg	Val	Gly	Arg	Glu	Asp	Glu	Asp	Arg	Trp	Glu	Val	Arg
		35					40					45			
Gly	Asp	Arg	Lys	Ala	Arg	Lys	Pro	Leu	Val	Glu	Lys	Lys	Arg	Arg	Ala
	50					55				60					
Arg	Ile	Asn	Glu	Ser	Leu	Gln	Glu	Leu	Arg	Leu	Leu	Leu	Ala	Gly	Ala
65					70					75				80	
Glu	Val	Gln	Ala	Lys	Leu	Glu	Asn	Ala	Glu	Val	Leu	Glu	Leu	Thr	Val
				85					90					95	
Arg	Arg	Val	Gln	Gly	Val	Leu	Arg	Gly	Arg	Ala	Arg	Glu	Arg	Glu	Gln
		100						105					110		
Leu	Gln	Ala	Glu	Ala	Ser	Glu	Arg	Phe	Ala	Ala	Gly	Tyr	Ile	Gln	Cys
		115					120					125			
Met	His	Glu	Val	His	Thr	Phe	Val	Ser	Thr	Cys	Gln	Ala	Ile	Asp	Ala
		130				135					140				
Thr	Val	Ala	Ala	Glu	Leu	Leu	Asn	His	Leu	Leu	Glu	Ser	Met	Pro	Leu
145					150					155				160	
Arg	Glu	Gly	Ser	Ser	Phe	Gln	Asp	Leu	Leu	Gly	Asp	Ala	Leu	Ala	Gly
				165					170					175	
Pro	Pro	Arg	Ala	Pro	Gly	Arg	Ser	Gly	Trp	Pro	Ala	Gly	Gly	Ala	Pro
		180						185					190		
Gly	Ser	Pro	Ile	Pro	Ser	Pro	Pro	Gly	Pro	Gly	Asp	Asp	Leu	Cys	Ser
		195					200					205			
Asp	Leu	Glu	Glu	Ala	Pro	Glu	Ala	Glu	Leu	Ser	Gln	Ala	Pro	Ala	Glu
	210					215					220				
Gly	Pro	Asp	Leu	Val	Pro	Ala	Ala	Leu	Gly	Ser	Leu	Thr	Thr	Ala	Gln
225					230					235					240
Ile	Ala	Arg	Ser	Val	Trp	Arg	Pro	Trp							
				245											

<210> 3239

<211> 432

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3239

```

aaaaccaaag attctcctgg agttttctct aaactgggtg ttctcctgag gagagtgaca
60
agaaacttgg tgagaaataa gctggcagtg attacgcgtc tccttcagaa tctgatcatg
120
ggtttgttcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa gggtgctatc
180
caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac accgatgctg
240
aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
300
ctctaccaga agtggcagat gatgctggcc tatgcaactgc acgtcctccc cttcagcggt
360
gttgccacca tgattttcag cagtgtgtgc tactggacgc tgggcttaca tctgaggtt
420
gcccgattgg gt
432

```

&lt;210&gt; 3240

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3240

```

Lys Thr Lys Asp Ser Pro Gly Val Phe Ser Lys Leu Gly Val Leu Leu
 1           5           10           15
Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr
 20           25           30
Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val
 35           40           45
Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val
 50           55           60
Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu
 65           70           75           80
Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu
 85           90           95
Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala
100          105          110
Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser
115          120          125
Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly
130          135          140

```

&lt;210&gt; 3241

&lt;211&gt; 492

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3241

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gtggaatttt tttagacaaa gtctcaaaaa acaaacaac aaacaaaagg taagataaat
60

```

acgaaataca aaataagagg caggaagagc ccaaagcatc agaaatgtgc cagttataat  
 120  
 gggccaaaat cccctcttgt gtctccagaa gtatttgaaa aatacgttag gatctgcctc  
 180  
 acagacatgc tcccaggaca ctcgacagca aggaggtacg gcgggcccag ccagccaagg  
 240  
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg  
 300  
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggctccctc agccccacac  
 360  
 cccaccagc caggagcggg gcctggcccg gggcaggcgg gtgggagagc tcaactgagt  
 420  
 ggcagcaggg catggccctt gatgctgcag gtaccaggc tgcagctgca gaaacctcag  
 480  
 tgggaaccca gg  
 492

&lt;210&gt; 3242

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3242

Met	Gly	Gln	Asn	Pro	Leu	Leu	Cys	Leu	Gln	Lys	Tyr	Leu	Lys	Asn	Thr
1				5					10					15	
Leu	Gly	Ser	Ala	Ser	Gln	Thr	Cys	Ser	Gln	Asp	Thr	Arg	Gln	Gln	Gly
			20					25					30		
Gly	Thr	Ala	Gly	Pro	Ala	Ser	Gln	Gly	Arg	Gly	Gly	His	His	Cys	His
			35				40					45			
Ser	Arg	Gly	Pro	Asp	Trp	Gln	Gln	Lys	Gly	Arg	Leu	Arg	Arg	Lys	Val
	50					55				60					
Ser	Arg	Lys	Gln	Asp	Arg	Gly	Trp	Thr	Asn	Gly	Leu	Pro	Gln	Pro	His
65					70				75					80	
Thr	Pro	Pro	Arg	Gln	Glu	Arg	Cys	Leu	Ala	Arg	Gly	Arg	Arg	Val	Gly
			85					90						95	
Glu	Leu	Thr	Glu	Trp	Ala	Ala	Gly	His	Gly	Pro					
			100					105							

&lt;210&gt; 3243

&lt;211&gt; 944

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3243

gatctgcatt ttcaagtgag caaagaccgc tatggagggc agccactttt ctcagagaag  
 60  
 ttccccaccc tttgtctgg ggcaaggagt acttacggag tgacaaaggg aaaagtctgc  
 120  
 tttgaggcaa aggtaaccca gaatctccca atgaaagaag gctgcacaga ggtctctctc  
 180  
 cttcagtttg ggtggtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct  
 240  
 tacggtttcg atggacgagg actcaaggca gaaaatggac aatttgagga atttggccag  
 300

acttttgggg agaatgatgt tattggctgc tttgctaatt ttgagactga agaagtagaa  
 360  
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc  
 420  
 ctggcagacc gggcccttct accccatgtc ctctgcaaaa attgtgttgt agaattaaac  
 480  
 ttcggtcaga aggaggagcc cttcttccca ccaccagaag agtttgtgtt cattcatgct  
 540  
 gtgcctgttg aggagcgtgt acgcactgca gtccctccca agaccataga ggaatgtgag  
 600  
 gtgattctga tgggtgggact acccggtatct ggaaagaccc agtgggcact gaaatatgca  
 660  
 aaagaaaacc ctgagaaaag atacaatgtc ctggggagctg agactgtgct caatcaaagt  
 720  
 aggatgaagg gtctcgagga gccagagatg gaccccaaaa gccgagacct tttagtccag  
 780  
 caagcctccc agtgccttag taagctggtc cagattgctt cccggacaaa gaggaacttt  
 840  
 attcttgatc agtgtaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag  
 900  
 accttctctc ggaaagtggg ggtggtgtgc cctaattgagg aaga  
 944

<210> 3244

<211> 314

<212> PRT

<213> Homo sapiens

<400> 3244

Asp	Leu	His	Phe	Gln	Val	Ser	Lys	Asp	Arg	Tyr	Gly	Gly	Gln	Pro	Leu
1				5				10					15		
Phe	Ser	Glu	Lys	Phe	Pro	Thr	Leu	Trp	Ser	Gly	Ala	Arg	Ser	Thr	Tyr
		20					25					30			
Gly	Val	Thr	Lys	Gly	Lys	Val	Cys	Phe	Glu	Ala	Lys	Val	Thr	Gln	Asn
	35					40						45			
Leu	Pro	Met	Lys	Glu	Gly	Cys	Thr	Glu	Val	Ser	Leu	Leu	Arg	Val	Gly
	50				55					60					
Trp	Ser	Val	Asp	Phe	Ser	Arg	Pro	Gln	Leu	Gly	Glu	Asp	Glu	Phe	Ser
65			70						75				80		
Tyr	Gly	Phe	Asp	Gly	Arg	Gly	Leu	Lys	Ala	Glu	Asn	Gly	Gln	Phe	Glu
			85				90						95		
Glu	Phe	Gly	Gln	Thr	Phe	Gly	Glu	Asn	Asp	Val	Ile	Gly	Cys	Phe	Ala
	100					105						110			
Asn	Phe	Glu	Thr	Glu	Glu	Val	Glu	Leu	Ser	Phe	Ser	Lys	Asn	Gly	Glu
	115					120						125			
Asp	Leu	Gly	Val	Ala	Phe	Trp	Ile	Ser	Lys	Asp	Ser	Leu	Ala	Asp	Arg
	130				135						140				
Ala	Leu	Leu	Pro	His	Val	Leu	Cys	Lys	Asn	Cys	Val	Val	Glu	Leu	Asn
145				150						155				160	
Phe	Gly	Gln	Lys	Glu	Glu	Pro	Phe	Phe	Pro	Pro	Pro	Glu	Glu	Phe	Val
			165					170						175	
Phe	Ile	His	Ala	Val	Pro	Val	Glu	Glu	Arg	Val	Arg	Thr	Ala	Val	Pro
	180						185						190		
Pro	Lys	Thr	Ile	Glu	Glu	Cys	Glu	Val	Ile	Leu	Met	Val	Gly	Leu	Pro



195	200	205
Gly Ser Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro		
210	215	220
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met		
225	230	235
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp		
245	250	255
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile		
260	265	270
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr		
275	280	285
Asn Ser Gly Gln Arg Arg Lys Leu Leu Leu Phe Lys Thr Phe Ser Arg		
290	295	300
Lys Val Val Val Val Val Pro Asn Glu Glu		
305	310	

&lt;210&gt; 3245

&lt;211&gt; 980

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3245

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 60  
 ctcagctgga tgaggatggg gatttggacg tggtgagaag accacgagcc gcctctgatt  
 120  
 ccaaccacgc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag  
 180  
 acgacgtcct gggagaggaa gcacaaggca gcccgcacga tatcatcaga ataggtgtgg  
 240  
 cggggcgccc tgctcctggc agactacatc ctgttccgac aggacctctt ccgaggatgt  
 300  
 acagcgctgg agctcggggc cggcacgggg ctgcttagca tcatcgagc caccatggca  
 360  
 cggaccgttt attgtacaga tgtcgttgca gatcttttgt ccatgtgcca gcgaaacatt  
 420  
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 780  
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 840  
 gagcgctcc agcagctgga gctctggaag atcatcgag aaccagtaac atgacccatc  
 900  
 gctccacca ggcgcggcgt ctcgactgtt cttagagtgt atttctagta aaatcagaag  
 960

ctcaccaaag caaaaaaaaaa  
980

<210> 3246

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3246

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Val Trp Arg Gly Ala Leu Leu Leu Ala Asp Tyr Ile Leu Phe Arg Gln
 1             5             10             15
Asp Leu Phe Arg Gly Cys Thr Ala Leu Glu Leu Gly Ala Gly Thr Gly
      20             25             30
Leu Ala Ser Ile Ile Ala Ala Thr Met Ala Arg Thr Val Tyr Cys Thr
      35             40             45
Asp Val Gly Ala Asp Leu Leu Ser Met Cys Gln Arg Asn Ile Ala Leu
      50             55             60
Asn Ser His Leu Ala Ala Thr Gly Gly Gly Ile Val Arg Val Lys Glu
      65             70             75             80
Leu Asp Trp Leu Lys Asp Asp Leu Cys Thr Asp Pro Lys Val Pro Phe
      85             90             95
Ser Trp Ser Gln Glu Glu Ile Ser Asp Leu Tyr Asp His Thr Thr Ile
      100            105            110
Leu Phe Ala Ala Glu Val Phe Tyr Asp Asp Asp Leu Thr Asp Ala Val
      115            120            125
Phe Lys Thr Leu Ser Arg Leu Ala His Arg Leu Lys Asn Ala Cys Thr
      130            135            140
Ala Ile Leu Ser Val Glu Lys Arg Leu Asn Phe Thr Leu Arg His Leu
      145            150            155            160
Asp Val Thr Cys Glu Ala Tyr Asp His Phe Arg Ser Cys Leu His Ala
      165            170            175
Leu Glu Gln Leu Thr Asp Gly Lys Leu Arg Phe Val Val Glu Pro Val
      180            185            190
Glu Ala Ser Phe Pro Gln Leu Leu Val Tyr Glu Arg Leu Gln Gln Leu
      195            200            205
Glu Leu Trp Lys Ile Ile Ala Glu Pro Val Thr
      210            215

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<210> 3247

<211> 977

<212> DNA

<213> Homo sapiens

<400> 3247

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ntctagaacc cagccctgtg gaagtatgtg cggcccaggg gctgtgtgct ggagtgggta
60
cgcaacatcg tggccaaccg cctggcctcg gatggggcca cctgggcaga catcttcaag
120
aggttcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcacg
180
ccgggtgggc ccagccccgg gagccgggtg cttaccatcc tggagcagat ccccggcacg
240
gtgggtgggtg ctgacaagac ctgaggagtc taccagaaga cctactgggc cagctacaac
300

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ataccgtcct tcgagactgt gttcaatgcc agtgggctgc aggcctagt ggcccagtat  
 360  
 ggggactggg tttcttatga cgggagcccc cgggcccaga tttccggcg gaaccagtca  
 420  
 ctggtacaag acatggactc catggtcagg ctgatgaggt acaatgactt cctccatgac  
 480  
 cctctgtcac tgtgcaaagc ctgcaacccc cagcccaatg gggagaatgc tatctccgcc  
 540  
 cgctccgacc tcaaccgggc caatggctcc tacccttcc aggcctacg tcagcgctcc  
 600  
 catgggggta tcgatgtgaa ggtgaccagc atgtcactgg ccaggatcct gagcctgctg  
 660  
 gcggccagcg gtcccacgtg ggaccagggt ccccggttcc agtggagcac ctgcacctc  
 720  
 agcggcctgc tgcacatggg ccagccagac ctctggaagt tcgcgcctgt caaggtttca  
 780  
 tgggactgaa gttctgtccc tgctctgctg ctttcgcccc tgetgacct cgtcagggtc  
 840  
 acccccgctc caaggccacc ggacttctaa ctccagcccc tccgggggc ttcgttctct  
 900  
 gatctggggg ctgagtcac tcctcctaga gtgggtcacg aacctgatgg ggctcagaac  
 960  
 tgacccctc tctcccc  
 977

&lt;210&gt; 3248

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3248

Asn	Pro	Ala	Leu	Trp	Lys	Tyr	Val	Arg	Pro	Arg	Gly	Cys	Val	Leu	Glu
1			5					10					15		
Trp	Val	Arg	Asn	Ile	Val	Ala	Asn	Arg	Leu	Ala	Ser	Asp	Gly	Ala	Thr
			20				25					30			
Trp	Ala	Asp	Ile	Phe	Lys	Arg	Phe	Asn	Ser	Gly	Thr	Tyr	Asn	Asn	Gln
	35					40				45					
Trp	Met	Ile	Val	Asp	Tyr	Lys	Ala	Phe	Ile	Pro	Gly	Gly	Pro	Ser	Pro
	50				55					60					
Gly	Ser	Arg	Val	Leu	Thr	Ile	Leu	Glu	Gln	Ile	Pro	Gly	Met	Val	Val
65			70					75					80		
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&lt;213&gt; Homo sapiens

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&lt;210&gt; 3255

&lt;211&gt; 724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3255

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<211> 169

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<213> Homo sapiens

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Pro	Asn	Gly	Asp	Thr	Tyr	Glu	Gly	Ser	Tyr	Glu	Phe	Gly	Lys	Arg	His
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 <212> DNA  
 <213> Homo sapiens

<400> 3257  
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 180  
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<210> 3258  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 3258  
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 20 25 30  
 Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser  
 35 40 45  
 Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser  
 50 55 60  
 Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg  
 65 70 75 80  
 Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys  
 85 90 95  
 Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala  
 100 105 110  
 Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg  
 115 120

<210> 3259  
 <211> 747  
 <212> DNA  
 <213> Homo sapiens

<400> 3259  
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 120  
 caccattgaa cccggagcgc tgcggcgggg caacatgagc tccctgggct ttacgagcaa  
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 240  
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 360  
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 480  
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 660  
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 720  
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 747

<210> 3260

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3260

Met	Ser	Ser	Leu	Gly	Phe	Thr	Ser	Lys	Glu	Gln	Arg	Asn	Leu	Gly	Leu
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Leu	Val	His	Leu	Met	Thr	Ser	Asn	Pro	Lys	Ile	Leu	Tyr	Ala	Pro	Ala
			20					25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
		35					40					45			
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
		50				55					60				
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85					90					95		
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
		100						105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
		115				120						125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
		130				135					140				
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145					150					155				160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170					175		
Phe	Gln	Thr	Arg	Lys	Asp	Gly	Ser	Ser	Arg	Leu	Thr	Cys	Thr	Thr	Arg

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Ser Ala Arg Thr Pro  
195

185

190

<210> 3261  
<211> 1323  
<212> DNA  
<213> Homo sapiens

<400> 3261  
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tgctgtgcca attgtgtttt ttgtctctgt gtacattttg gttttatttg gggttgctgt  
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tgatgatttc ctttgttccg gtgttctgtc tcccctcgtt ggctgtgtgg gggctgcctg  
240  
gcccgtctgt tgccgcctcc atagatcccc gttgcgcagc catctgtcat ggacgacatt  
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360  
gagtttgata aattccttga agaaagagcc aaagctgtgt aaatgggtcc cgacctcccc  
420  
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480  
cggtcagagg atgccctctt cgccctgtga gcagctctgt ggtttgcctc cccagatggc  
540  
gggtccccgc ttgcaccccg tggacaccgg gactggcca ctctacatc cccagctcca  
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cacggcctgc acacctgtgt ttccatggaa atgccaccgt gtctgtctcc aggcctcccc  
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720  
gactctctcc cctcccacca tgggccccctc tgcccatgtt tctcccagg aagagcgggc  
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840  
cccgcccatg gagaaagagc acgcccggcc ccgcccgtgt ctacactctg cctggctcag  
900  
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1140  
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1200  
ggccaaggac aattgggagg gcagcaggca gcccgagat ggtggccatg tggcacgctg  
1260  
ctgagacgac actaccaata aaccaaactg ccacgcacaa aaaaaaaaaa aaaaaaaaaa  
1320



aaa  
1323

<210> 3262  
<211> 81  
<212> PRT  
<213> Homo sapiens

<400> 3262  
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Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Glu Gly Val Thr Ser Glu  
20 25 30  
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val  
35 40 45  
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn  
50 55 60  
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala  
65 70 75 80  
Leu

<210> 3263  
<211> 1128  
<212> DNA  
<213> Homo sapiens

<400> 3263  
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cggggacgca agggccgggg cgggggtccc cgtcctcct ctgactccga gcccagggcc  
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gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc  
180  
gccaggaaac ctggccagaa ggagaagaga gtgcggcccg aggagaagca acaagccaag  
240  
cccgtgaagg tggagcggac ccggaagcgg tccgagggct tctcgatgga caggaaggta  
300  
gagaagaaga aagagccctc cgtggaggag aagctgcaga agctgcacag tgagatcaag  
360  
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420  
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480  
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540  
acccggtca agtcgcgggt cctcggccca aagatcgagg cgggtgcagaa agtgaacaag  
600  
gctgggatgg agaaggagaa ggccgaggag aagctggccg gggaggagct ggccggggag  
660  
gaggcccccc aggagaaggc ggaggacaag ccagcaccg atctctcagc cccagtgaat  
720  
ggcgaggcca catcacagaa gggggagagc gcagaggaca aggagcacga ggagggtcgg  
780

gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag  
 840  
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 900  
 tcggaggccc tggacgagga gagctgagcc gcgggcagcc aggcccagcc cccggccgag  
 960  
 ctcaggctgc ccctctcctt ccccggtctg caggagagca gagcagagaa ctgtggggaa  
 1020  
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 1080  
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<210> 3264  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 3264  
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 Pro Val Lys Lys Arg Gly Arg Lys Gly Arg Gly Arg Gly Pro Pro Ser  
 20 25 30  
 Ser Ser Asp Ser Glu Pro Glu Ala Glu Leu Glu Arg Glu Ala Lys Lys  
 35 40 45  
 Ser Ala Lys Lys Pro Gln Ser Ser Ser Thr Glu Pro Ala Arg Lys Pro  
 50 55 60  
 Gly Gln Lys Glu Lys Arg Val Arg Pro Glu Glu Lys Gln Gln Ala Lys  
 65 70 75 80  
 Pro Val Lys Val Glu Arg Thr Arg Lys Arg Ser Glu Gly Phe Ser Met  
 85 90 95  
 Asp Arg Lys Val Glu Lys Lys Lys Glu Pro Ser Val Glu Glu Lys Leu  
 100 105 110  
 Gln Lys Leu His Ser Glu Ile Lys Phe Ala Leu Lys Val Asp Ser Pro  
 115 120 125  
 Asp Val Lys Gly Cys Leu Asn Ala Leu Glu Glu Leu Gly Thr Leu Gln  
 130 135 140  
 Val Thr Ser Gln Ile Leu Gln Lys Asn Thr Asp Val Val Ala Thr Leu  
 145 150 155 160  
 Lys Lys Ile Arg Arg Tyr Lys Ala Asn Lys Asp Val Met Glu Lys Ala  
 165 170 175  
 Ala Glu Val Tyr Thr Arg Leu Lys Ser Arg Val Leu Gly Pro Lys Ile  
 180 185 190  
 Glu Ala Val Gln Lys Val Asn Lys Ala Gly Met Glu Lys Glu Lys Ala  
 195 200 205  
 Glu Glu Lys Leu Ala Gly Glu Glu Leu Ala Gly Glu Glu Ala Pro Gln  
 210 215 220  
 Glu Lys Ala Glu Asp Lys Pro Ser Thr Asp Leu Ser Ala Pro Val Asn  
 225 230 235 240  
 Gly Glu Ala Thr Ser Gln Lys Gly Glu Ser Ala Glu Asp Lys Glu His  
 245 250 255  
 Glu Glu Gly Arg Asp Ser Glu Glu Gly Pro Arg Cys Gly Ser Ser Glu  
 260 265 270  
 Asp Leu His Asp Ser Val Arg Glu Gly Pro Asp Leu Asp Arg Pro Gly

275                      280                      285  
 Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu  
 290                      295                      300  
 Asp Glu Glu Ser  
 305

<210> 3265  
 <211> 524  
 <212> DNA  
 <213> Homo sapiens

<400> 3265  
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 120  
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa  
 180  
 ggtacattat tggtgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca  
 240  
 gtcattgaaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac  
 300  
 ttcaagaaga aaagaagtaa gtttagagaaa gtaccgctgg gccctggtgc acggtgctgg  
 360  
 ttgccaggc gcatgcggac ggagggtgtg gggcacgtgg gtctcgggac aggaagccca  
 420  
 ggcaggtctc aacctggctg ccaactgcca cttgccaccc tcctcctaga gggagcaccc  
 480  
 agagggtcca gcctcgtcc ccttctcctc cacgctccac gcgt  
 524

<210> 3266  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3266  
 Met Arg Phe Arg Lys Arg Lys Asn Phe Lys Lys Lys Arg Ser Lys Leu  
 1                      5                      10                      15  
 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg  
 20                      25                      30  
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro  
 35                      40                      45  
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu  
 50                      55                      60  
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala  
 65                      70                      75                      80  
 Pro Arg

<210> 3267  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 3267  
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tggaatacat tgaataaaaa ggtcgcacaa agaattgcac agctacagga agctttgttg  
120  
cattgtggga agtttcaaga tgccttggag ccattgctca gctggttggc agataccgag  
180  
gagctcatag ccaatcagaa acctccatct gctgagtata aagtggtgaa agcacagatc  
240  
caagaacaga agttgctcca gcggctccta gatgatcgaa aggccacagt agacatgctt  
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360  
ggacagctgg agagtcttga aagtagatgg act  
393

<210> 3268  
<211> 131  
<212> PRT  
<213> Homo sapiens

<400> 3268  
Val Glu Tyr Ala Cys Arg Val Gln Gly Leu Glu His Asp Met Glu Glu  
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Ile Asn Ala Arg Trp Asn Thr Leu Asn Lys Lys Val Ala Gln Arg Ile  
20 25 30  
Ala Gln Leu Gln Glu Ala Leu Leu His Cys Gly Lys Phe Gln Asp Ala  
35 40 45  
Leu Glu Pro Leu Leu Ser Trp Leu Ala Asp Thr Glu Glu Leu Ile Ala  
50 55 60  
Asn Gln Lys Pro Pro Ser Ala Glu Tyr Lys Val Val Lys Ala Gln Ile  
65 70 75 80  
Gln Glu Gln Lys Leu Leu Gln Arg Leu Leu Asp Asp Arg Lys Ala Thr  
85 90 95  
Val Asp Met Leu Gln Ala Glu Gly Gly Arg Ile Ala Gln Ser Ala Glu  
100 105 110  
Leu Ala Asp Arg Glu Lys Ile Thr Gly Gln Leu Glu Ser Leu Glu Ser  
115 120 125  
Arg Trp Thr  
130

<210> 3269  
<211> 1423  
<212> DNA  
<213> Homo sapiens

<400> 3269  
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tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata  
120  
aaatatagga tgtggaagcg aaaaaatatt tgggtagcaa gtgagggtgta ctcaaaaaata  
180

agcaaaagtc acgtgggtct gatatttatac cctcgtgga aagcttggtc tcagacacac  
 240  
 tgttactgca agtgtgtgtg agggggaaac tctcacacac tttgcagttg aggacagggc  
 300  
 tagactttga ggtggacctt ggctcccagg gctgtgtact cccagcccgt gtttctcttt  
 360  
 tgctcagact gaacaagtgg aacgaaatta cattaaagaa aagaaggcag cagtgaagaa  
 420  
 atttgaagac aagaagggtt agctgaaaga gaacctgatt gctgagctag aagaaaagaa  
 480  
 gaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa  
 540  
 acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa  
 600  
 gaggaggaaa cctgctccag cccagctaaa ctatttgta acagatgaac agatcatgga  
 660  
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc  
 720  
 tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcggataga  
 780  
 agatggcaaa ctgtattatg acaaaagatg gtaccacaag agccaggcca tctatctgga  
 840  
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 900  
 ggtgaggaag acaagtgaca gcaccaagat gaggatctac ctgggtcagc ttcagcgcgg  
 960  
 gctcttcgtg atccgccggc gctcagctgc ttgactttct acagtgtctt tctcttgacc  
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 1080  
 taacttactg ggaatagcta ctcagccttg gaaatggaga gcactgcagt gaattcttta  
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 1200  
 agacatcagt caccatgaga ctgttttact ttcaggcgta ttgggggggt tgatttactt  
 1260  
 tccttttatt tctttatttt ttgcttatac ttgtttttga aaacctcttc tgagtttgaa  
 1320  
 gggacagcta tttttattga ttatctttta gtctctctac catggagaag agcaggaagg  
 1380  
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 1423

&lt;210&gt; 3270

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3270

Met	Ile	Glu	Asn	Glu	Met	Leu	Thr	Met	Glu	Leu	Asn	Gly	Asp	Ser	Met
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Glu	Val	Lys	Pro	Ile	Met	Thr	Arg	Lys	Leu	Arg	Arg	Arg	Pro	Asn	Asp
			20					25					30		
Pro	Val	Pro	Ile	Pro	Asp	Lys	Arg	Arg	Lys	Pro	Ala	Pro	Ala	Gln	Leu

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      35              40              45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
      50              55              60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
65              70              75              80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85              90              95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100              105              110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115              120              125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130              135              140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
145              150              155              160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

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&lt;210&gt; 3271

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3271

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tcatgagcag ggccaattc tggcttctct gtggctcgcca tccatgtgct gggcgtcact
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gaaggcactg gggatacagc cgagcacaag atggacagag atccctggcc cctcggagca
120
ggcagtctgt ggctctggcc cctccagttc cttgtcacca ggagataggc aatgcagctg
180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat cccagcgttg
240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
300
gccttcatag tccattcaga gttgatggta atggctactt ggtaggtgcc actgtctgta
360
ggctgggcgc ggcgcagcag catggaacca ttggggaagc ccacgatgtc tcgctgtccc
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atggcactgc catccctctg aggcggttgt atccccaggg atgt
464

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&lt;210&gt; 3272

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3272

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Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
  1              5              10              15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
      20              25              30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
      35              40              45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

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      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
      100              105              110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
      115              120              125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
      130              135              140

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&lt;210&gt; 3273

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3273

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ngcgcgccag ggatggaaaa ctttattctg tatgaggaga tcggaagagg aagcaagact
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gttgtctata aagggcgacg gaagggaaca atcaattttg tagccattct ttgtactgat
120
aagtgcagaa ggctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
gttgtgagag aatttggaat tgacctgatt agtggattac atcatcttca taaacttggc
360
attctctttg tgacatttct cctagga
387

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&lt;210&gt; 3274

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3274

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Xaa Ala Pro Gly Met Glu Asn Phe Ile Leu Tyr Glu Glu Ile Gly Arg
 1              5              10              15
Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
      20              25              30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
      35              40              45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
      50              55              60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
65              70              75              80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
      85              90              95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
      100              105              110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

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115                                      120                                      125  
 Gly  
  
 <210> 3275  
 <211> 1266  
 <212> DNA  
 <213> Homo sapiens  
  
 <400> 3275  
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<210> 3276  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 3276  
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 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu  
 35 40 45  
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro  
 50 55 60  
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys  
 65 70 75 80  
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 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg  
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<210> 3277  
 <211> 1435  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 240  
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 300  
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 420  
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 1435

&lt;210&gt; 3278

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3278

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Tyr	Ser	Met	Val	Ala	Gly	Ala	Gly	Arg	Glu	Asn	Gly	Met	Glu	Thr	Pro
			20					25				30			
Met	His	Glu	Asn	Pro	Glu	Trp	Glu	Lys	Ala	Arg	Gln	Ala	Leu	Ala	Ser
		35					40				45				
Ile	Ser	Lys	Ser	Gly	Ala	Ala	Gly	Gly	Ser	Ala	Lys	Ser	Ser	Ser	Asn
	50					55				60					
Gly	Pro	Val	Ala	Ser	Ala	Ser	Thr	Cys	Pro	Arg	Gln	Lys	Pro	Gln	Leu
65					70				75					80	
Cys	Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Thr	Ser	Ser	Thr	Thr	Met	Pro
			85				90							95	
Thr	Pro	Thr	Ala	Thr	Thr	Ile	Pro								
			100												

&lt;210&gt; 3279

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3279

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 120

cctgagccag aaccaggcac catggtggag aagggatcag atagctcctc agagaagggg  
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 ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcac ccgcaacagc  
 240  
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 300  
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 360  
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 420  
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 480  
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 720  
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 780  
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 960  
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 1130

&lt;210&gt; 3280

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3280

Xaa	Arg	Ala	His	Arg	Ala	Ala	Ser	Met	Phe	Asp	Thr	Thr	Pro	His	Ser
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Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
			35				40					45			
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
	50					55					60				
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65					70				75					80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85					90						95	
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

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      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
      370      375

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&lt;210&gt; 3281

&lt;211&gt; 842

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3281

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60

gcaggacccg caggaggggc ctggaccg ggggctcctg gcagcgctgt gcctttctga

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240

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300

ctggttcaca aagtgtgttg tttccaggaa gaacagatgg gggcgctga gggcaaaggg

360

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 842

<210> 3282

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3282

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Pro	Asp	Thr	Ser	Leu	Gln	Val	Leu	Leu	Val	Ala	Gly	Pro	Thr	Lys	Ala
			20						25					30	
Pro	Trp	Pro	Arg	Gln	Pro	Gly	Gly	Cys	Trp	Thr	Val	Gly	Leu	Pro	Ala
			35				40						45		
Thr	Ser	Phe	Ala	Arg	Gly	Lys	Glu	His	His	Val	Gly	His	Ile	His	Glu
	50					55					60				
Gly	Thr	Gly	Asn	Ser	Val	Val	Pro	Ser	Val	Thr	Pro	Cys	Gln	Asp	Thr
65					70					75				80	
Gln	Asp	Glu	Asn	Pro	Ala	Pro	Glu	Arg	Ala	Ala	Gly	Ile	Ser	Ser	Thr
			85						90					95	
His	Thr	Gln	Ala	Leu	Cys	Pro	Gln	Ala	Pro	Pro	Ser	Val	Leu	Pro	Gly
			100					105					110		
Asn	Asn	Thr	Leu	Cys	Glu	Pro	Val	Val	Glu	Pro	Gly	Thr	Ala	Trp	Ala
		115					120					125			
Ser	Glu	Gln	Ser	His	Glu	Ile	Arg	Val	Arg	Thr	Pro	Ser	Cys	Arg	Gly
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Arg	Asp														
145															

<210> 3283

<211> 3268

<212> DNA

<213> Homo sapiens

<400> 3283

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 <211> 1012  
 <212> PRT  
 <213> Homo sapiens

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 Ala Phe Thr Arg Xaa His Val Cys Ala Glu Asn Leu Pro Pro Val Leu  
 35 40 45  
 Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met  
 50 55 60  
 Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln  
 65 70 75 80  
 Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg  
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 Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met  
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 Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys  
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 130 135 140  
 Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln  
 145 150 155 160  
 Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser  
 165 170 175  
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 180 185 190  
 Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp  
 195 200 205  
 Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn  
 210 215 220  
 Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val  
 225 230 235 240  
 Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Glu Arg Ser Arg  
 245 250 255  
 Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp  
 260 265 270  
 Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg  
 275 280 285  
 Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro  
 290 295 300  
 Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln  
 305 310 315 320  
 Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe  
 325 330 335  
 Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys  
 340 345 350  
 Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val  
 355 360 365  
 Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp



370	375	380
Leu Ala Tyr Asn Ser	Leu Lys Arg Gln Glu	Leu Glu Ser Glu Asn Lys
385	390	395
Lys Leu Lys Asn Asp	Leu Asn Glu Leu Arg	Lys Ala Val Ala Asp Gln
405	410	415
Ala Thr Gln Asn Asn Ser Ser His	Gly Ser Pro Asp Ser Tyr Ser Leu	
420	425	430
Leu Leu Asn Gln Leu Lys Leu Ala His	Glu Glu Leu Glu Val Arg Lys	
435	440	445
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val	Ser Ala Asp Gln Arg	
450	455	460
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser		
465	470	475
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala		
485	490	495
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln		
500	505	510
Ala Gln Ser Leu Glu His Glu Glu Val Glu His Leu Lys Ala Gln		
515	520	525
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys		
530	535	540
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln		
545	550	555
Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu		
565	570	575
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys		
580	585	590
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala		
595	600	605
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln		
610	615	620
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp		
625	630	635
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met		
645	650	655
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys		
660	665	670
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu		
675	680	685
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn		
690	695	700
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu		
705	710	715
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln		
725	730	735
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr		
740	745	750
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln		
755	760	765
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala		
770	775	780
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr		
785	790	795
Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr		

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<210> 3285
<211> 1518
<212> DNA
<213> Homo sapiens
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<400> 3285
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120
ggtttcacca ctgcctcctt tggcaacttg agtgggtggg ttcccaccga gtttatggct
180
gcaaagatag gtcttttctc gtattttatgt ataaacaggt accagttttg atttttattta
240
atcatttcat acattaacat acatgacaca tcaaaatgag aaatgcacag tttaaccggt
300
caacagctgg ccttacttca aaagaacact atattcatat taaacattta cagtctttcc
360
atctaacttt acacatgtcc taaatcattt tccagcactt ctcacataga agtctagttt
420
tgctctttta aatcaccatc tgtatcacc ctagtagacg cgagggtttc cccaattaca
480
tgctgaagag agccagccac caccacacct aaagacatcc aagcagctcc agagcctgcc
540
tccgaggcca ccccttcgcc acggcagtct cgattccaag aactgattat ctgacactag
600
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tgaaccagca ctaaaggctg taggatgtga ctacatcaca gttccagaag gaaggggacc  
 660  
 atggccaaga gaagccctaa atgacagaag ctcattaaaa ccaagtcccc caaacctcct  
 720  
 gaaacatcgt tagcaaggag ctactgcttt cctttcttaa acatgttttg ggcattgacca  
 780  
 cactctggaa gtggtgaact gttacacatt tgggtgtgtg gtacataaca tcaaaaacta  
 840  
 ctgtgtgaaa cttgagaatg tctgattaaa gatttcaatg tatatctaaa aactaactca  
 900  
 aatcgttgac cagcactttc ccagtatcat aacaatgcgg ctgaccctct tctgccttca  
 960  
 ctttacaccc catcatagca cattatttgt gcacaactag tgaggctctgt gcggctcatc  
 1020  
 atccccataa ccaagtcggt ctgtgttgag tcatatcatt ctgtgctggt tttagaagtc  
 1080  
 accataggaa acatgaagtc acatcctggt caaaaaactg tccatttctc aaaaacagag  
 1140  
 aaaaacctga gatacgaggc agcaactagc gacacttaca ggaagggaaa gaacaatgac  
 1200  
 aacacccgcc cagccccacc ccaaaaaagc tgctgttggt aattaaggct tcaaaagagg  
 1260  
 acccacactg tagctgataa aactcaagcc aggaggatgt ttgaaagcca atctgcacta  
 1320  
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 1380  
 aggttgagga ctgaggacgc ccctttgctc tcgctccatt ttgatttgc ttttccactg  
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<210> 3286

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3286

Met	Lys	Ser	His	Pro	Gly	Gln	Lys	Thr	Val	His	Phe	Ser	Lys	Thr	Glu
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Lys	Asn	Leu	Arg	Tyr	Glu	Ala	Ala	Thr	Ser	Asp	Thr	Tyr	Arg	Lys	Gly
			20					25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
			35				40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
	50					55					60				
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65				70					75					80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
			85					90					95		
Arg	Leu	Arg	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp	Leu
			100					105					110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp

115 120 125  
 Pro Trp Leu Cys Thr Leu Phe Thr Thr Asp Gln Asn Ser Ile  
 130 135 140

<210> 3287  
 <211> 921  
 <212> DNA  
 <213> Homo sapiens

<400> 3287  
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 120  
 gcgtaagccc aatccgggaa actcgttgcc cctctcctgg gaaaggaacg tccctcccca  
 180  
 gggttgcgag tgactcgggc accatcaccg tgtgctgtaa agacctgcca gtgctgcagc  
 240  
 tggaaataga gggcgcgga ggcagcgtgg gcacgcgccg ctccatcgag gtgtgccgag  
 300  
 ggagctcccg agccctttaa gctctccctg tctcgcgtag aggggaataa aaaggtgctt  
 360  
 ctgttcaaag aggtccgca gccgcagcta aatggcaggg ggatgcaggg tgggtccggg  
 420  
 tacttgaga ggccgaagct gaagctacag gactgagggg ctggaaaggg cgcgggcgag  
 480  
 acaattccga cctcccccag agcccctgac ttccttctcc ggacgctgtc ctccctggaa  
 540  
 tcagtcatca cctccttccc tttattctac cgtcccaagg gcctgagatt gggcgactcc  
 600  
 tggcacttcc tcccggcga actctactgc aagagagtag ctgcggaagt gggcgcggtc  
 660  
 gtaggggccc gggaagggtg aagcgccggg cctggaagag gcgcggggac agggcactcc  
 720  
 ctgggtgccc tagacctggc ctctctctc cctgcgctgc agaccaacgc ggccggaaaa  
 780  
 aggctggagg gggcttggca gccaaagctaa ttcgggagaa tttctatgat tatgattttt  
 840  
 ttattaaata gttataaaaa aatagggtat acaatttaaa ggactccttag tttaaaacaa  
 900  
 aatctattct gagaactctt c  
 921

<210> 3288  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 3288  
 Met Thr Asp Ser Arg Glu Asp Ser Val Arg Arg Arg Lys Ser Gly Ala  
 1 5 10 15  
 Leu Gly Arg Val Gly Ile Val Ser Pro Ala Pro Phe Pro Ala Pro Gln  
 20 25 30  
 Ser Cys Ser Phe Ser Phe Gly Leu Ser Lys Tyr Pro Gly Pro Pro Cys

```

      35              40              45
Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
      50              55              60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
65              70              75              80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85              90              95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100              105              110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115              120              125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130              135              140
Gly Arg Gln Leu
145

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&lt;210&gt; 3289

&lt;211&gt; 554

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3289

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acgcgtagt atctgtgcga ggtcacacag caaatctgtg ggaggctagg gttcaaactt
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cacagcatgg actcttcctt gtgtcccggt cctgccttcg cctcctccca gctcttctct
120
cccagcctcc tagcccaata tcagggccgg aggcactgga gaacttccgg ctaaggcagg
180
cctccctcc cattcacaga gccctgccag ggtggctggc aatggtgaag tccagggcag
240
agatggggac agaggggacg ccttggtatc gactctgtgg tgggtggacc acctccctga
300
gaccagcat ccacgtcggg cagcacatgc taccagtc acagaagagg aaacagaggc
360
tccgagagga agggactgtg tccagggcgg gaccagggcc cttctgcact ggggtcaatga
420
gccaaagcaca tcacccacag ccttggggag caggagccgg gccttgcagg gtgaggagct
480
gggaaaagca aagctccatg gaaggcaacc gggaatcatc acaaataagga cataactagt
540
ataagctgca attg
554

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&lt;210&gt; 3290

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3290

```

Met Ile Pro Gly Cys Leu Pro Trp Ser Phe Ala Phe Pro Ser Ser Ser
  1              5              10              15
Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
      20              25              30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

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```

          35          40          45
Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
  50          55          60
Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
  65          70          75          80
His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
          85          90          95
Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
          100          105          110
Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
          115          120          125
Gly

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&lt;210&gt; 3291

&lt;211&gt; 1075

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3291

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nngcntatgg ggtgcgcttt acgcgactgc cgctggagcg cgggtgtgggt ggctgcactt
  60
ggctggaggg ccccgcgcggt gccttcgcct gcgcgctgga gcgcgacgcc cgggcccgcg
  120
tgggcccctt ctcccgccac gcctgcggtg aggtcccccg ccccgctctcc taccatagct
  180
gcctctgtcc ctccgcactg gctgttcacc tggctagctg tgtccgttcc tcaaccggga
  240
agcgagtctn ggcgtcgacc gctgccgcca cccagttac cccctccac cccgccgtcc
  300
cttccctagc ctacatagcc cttggccatg gcccggcctg gtcccacctc tgatgtcccg
  360
ccccccacag gtggacagac gccttcgnnt gggcctgagc acttgcgggc ggcacatgtc
  420
cgctcacgc gtgtccgggg ccctggcgcg ggtcctggaa gtaccctagc gggccacacc
  480
ctgacagccg agctgatggc gcaccccggc taccctagtg tgcctccacc ggcggctgcg
  540
gtgaaggccc cgacgctttc tcttgctctt gggagcggct gcatgagctg cgcgtcctca
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ccgcgccac gctgcggggc cagcttgccc aggatggcgt gcagctttgc gccctcgacg
  660
acctggactc caagaggcca ggggaggagg tccctgtga gccactctg gaacccttcc
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  780
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  900
tggcatctag agtttgagca gccttcttgg ctgcaggcag gcctagcctg tggcagcggg
  960
ctagggcccg cagagcattt ggtgccctc catgttgcaa tgcaaacc ttcaccactg
 1020

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gggcagtggg gagagatggc tatattaata aaataacgtg tgtctttcaa aaaaa  
1075

<210> 3292

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

Xaa	Xaa	Met	Gly	Cys	Ala	Leu	Arg	Asp	Cys	Arg	Trp	Ser	Ala	Val	Trp
1			5					10					15		
Val	Ala	Ala	Leu	Gly	Trp	Arg	Pro	Pro	Arg	Val	Pro	Ser	Pro	Ala	Pro
		20						25					30		
Trp	Ser	Ala	Thr	Pro	Gly	Pro	Pro	Trp	Ala	Pro	Ser	Pro	Ala	Thr	Pro
		35				40						45			
Ala	Val	Arg	Leu	Pro	Ala	Pro	Ser	Pro	Thr	Ile	Ala	Ala	Ser	Val	Pro
	50					55				60					
Pro	His	Trp	Leu	Phe	Thr	Trp	Leu	Ala	Val	Ser	Val	Ser	Gln	Pro	Gly
65				70					75				80		
Ser	Glu	Ser	Xaa	Arg	Arg	Pro	Leu	Pro	Pro	Pro	Gln	Leu	Pro	Pro	Pro
			85					90					95		
Thr	Pro	Pro	Ser	Leu	Pro										
			100												

<210> 3293

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 3293

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120  
gcaggacgcc gacacctacc cctcagcaga cgccggagag aatgagtag caacaaagag  
180  
cagcggtcag cagtgttcgt gatcctcttt gccctcatca ccaccccat cctctacagc  
240  
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600  
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660  
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720

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960  
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1020  
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1140  
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1320  
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1380  
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1740  
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1860  
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1920  
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1980  
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2040  
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2160  
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<210> 3294

<211> 353

<212> PRT

<213> Homo sapiens

<400> 3294

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Gln	Arg	Gly	His	Met	Ala	Cys	Ser	Arg	Pro	Pro	Ser	Gln	Cys	Glu	Pro	20	25	30	
Thr	Ser	Leu	Pro	Pro	Gly	Pro	Pro	Ala	Gly	Arg	Arg	His	Leu	Pro	Leu	35	40	45	
Ser	Arg	Arg	Arg	Arg	Glu	Met	Ser	Ser	Asn	Lys	Glu	Gln	Arg	Ser	Ala	50	55	60	
Val	Phe	Val	Ile	Leu	Phe	Ala	Leu	Ile	Thr	Ile	Leu	Ile	Leu	Tyr	Ser	65	70	75	80
Ser	Asn	Ser	Ala	Asn	Glu	Val	Phe	His	Tyr	Gly	Ser	Leu	Arg	Gly	Arg	85	90	95	
Ser	Arg	Arg	Pro	Val	Asn	Leu	Lys	Lys	Trp	Ser	Ile	Thr	Asp	Gly	Tyr	100	105	110	
Val	Pro	Ile	Leu	Gly	Asn	Lys	Thr	Leu	Pro	Ser	Arg	Cys	His	Gln	Cys	115	120	125	
Val	Ile	Val	Ser	Ser	Ser	Ser	His	Leu	Leu	Gly	Thr	Lys	Leu	Gly	Pro	130	135	140	
Glu	Ile	Glu	Arg	Ala	Glu	Cys	Thr	Ile	Arg	Met	Asn	Asp	Ala	Pro	Thr	145	150	155	160
Thr	Gly	Tyr	Ser	Ala	Asp	Val	Gly	Asn	Lys	Thr	Thr	Tyr	Arg	Val	Val	165	170	175	
Ala	His	Ser	Ser	Val	Phe	Arg	Val	Leu	Arg	Arg	Pro	Gln	Glu	Phe	Val	180	185	190	
Asn	Arg	Thr	Pro	Glu	Thr	Val	Phe	Ile	Phe	Trp	Gly	Pro	Pro	Ser	Lys	195	200	205	
Met	Gln	Lys	Pro	Gln	Gly	Ser	Leu	Val	Arg	Val	Ile	Gln	Arg	Ala	Gly	210	215	220	
Leu	Val	Phe	Pro	Asn	Met	Glu	Ala	Tyr	Ala	Val	Ser	Pro	Gly	Arg	Met	225	230	235	240
Arg	Gln	Phe	Asp	Asp	Leu	Phe	Arg	Gly	Glu	Thr	Gly	Lys	Asp	Arg	Glu	245	250	255	
Lys	Ser	His	Ser	Trp	Leu	Ser	Thr	Gly	Trp	Phe	Thr	Met	Val	Ile	Ala	260	265	270	
Val	Glu	Leu	Cys	Asp	His	Val	His	Val	Tyr	Gly	Met	Val	Pro	Pro	Asn	275	280	285	
Tyr	Cys	Ser	Gln	Arg	Pro	Arg	Leu	Gln	Arg	Met	Pro	Tyr	His	Tyr	Tyr	290	295	300	
Glu	Pro	Lys	Gly	Pro	Asp	Glu	Cys	Val	Thr	Tyr	Ile	Gln	Asn	Glu	His	305	310	315	320
Ser	Arg	Lys	Gly	Asn	His	His	Arg	Phe	Ile	Thr	Glu	Lys	Arg	Val	Phe	325	330	335	
Ser	Ser	Trp	Ala	Gln	Leu	Tyr	Gly	Ile	Thr	Phe	Ser	His	Pro	Ser	Trp	340	345	350	
Thr																			

<210> 3295  
 <211> 690  
 <212> DNA  
 <213> Homo sapiens

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 120  
 gtcagactca ttttcagcct cattaggcag cagacggaga tggagggagg agagcaggag  
 180  
 gctgggggat gggctctgca ctgcagagac cagcagggac taaagaagag aggacatggg  
 240  
 gaactggaaa aataagcctt ccaggattgt ggggagaaag acgctgtggg agaggccagg  
 300  
 atgctgcatt aggcacagga taacctggga acccaggcac atgggtcctg ctctccgaag  
 360  
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<210> 3296  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 3296  
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 Pro Arg His Met Gly Pro Ala Leu Arg Ser Leu Gln Val Lys Lys Gly  
 35 40 45  
 Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly  
 50 55 60  
 Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr  
 65 70 75 80  
 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu  
 85 90 95  
 Ser Asp Lys Asp Ala Leu Glu Asp His Met Asp Gly His Phe Phe Phe  
 100 105 110  
 Ser Thr Gln Gly Pro Leu His Leu

115

120

&lt;210&gt; 3297

&lt;211&gt; 3176

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3297

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<210> 3298

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3298

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			20					25					30		
Cys	Leu	Trp	Val	Ser	Phe	Cys	Val	Cys	Val	Cys	Ile	Cys	Val	Cys	Val
	35					40					45				
Xaa	Leu	Cys	Ala	Cys	Met	Cys	Leu	Asp	Val	Cys	Phe	Cys	Met	Cys	Leu
	50					55					60				
Cys	Val	Cys	Leu	Tyr	Val	Cys	Ile	Cys	Val	Tyr	Val	Cys	Val	Cys	His
65					70				75						80
Phe	Val	Cys	Phe	Trp	Val	Cys	Leu	Ser	Ala	Cys	Leu	Cys	Ile	Pro	Val
				85					90					95	
Ser	Pro	Cys	Val	Cys	Leu	Cys	Val	Cys	Ile	Cys	Xaa	Cys	Leu	Cys	Met
			100					105					110		
Cys	Val	Arg	Gly	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Ile	Glu	Arg
		115					120					125			
Glu	Gly	Glu	Arg	Lys	Gly	Ala	Thr	Asp	Gly	Ser	Ala	Trp	Lys	Val	Tyr
	130					135					140				
Pro	His	Ser	Gln	Pro	Trp	Glu	Glu	Ser	Val	Asn	Pro	Pro	Thr	Gly	Gln
145					150					155					160
Asp	Gln	Leu	Trp	Trp	Cys	Leu	Ala	Asp	Ser	Gly	Asn	Val	Thr	Phe	His
				165					170					175	
Leu	Arg	Met	Gly	Leu	His	Phe	Leu	Gly	Lys	Glu	Cys	Arg	Ser	Trp	Ser
		180						185					190		
Leu	Lys	Glu	Cys	Phe	Phe	Phe	Pro	Phe	Val	Ile	Glu	Arg	Ala	Gln	Pro
		195					200					205			
Cys	Val	His	Trp	Leu	Thr	Val	Thr	Asn	Leu	Arg	Val	Gly	Asp	Ser	His
	210					215					220				
Arg	Glu	Glu	Thr	Glu	Gly	Thr	Ala	Asp	Ser	Glu	Gln	Glu	Ser	Gly	Gly
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Thr	Ser	Leu	Pro	Leu	Gly	Pro	Asn	Pro	Gln	Leu					
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<210> 3299

<211> 1387

<212> DNA

<213> Homo sapiens

<400> 3299

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&lt;210&gt; 3300

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3300

Met Ser Arg Cys Glu Thr Cys Gly Thr Glu Glu Ala Lys Tyr Arg Cys

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Pro Arg Cys Met Arg Tyr Ser Cys Ser Leu Pro Cys Val Lys Lys His
      20           25           30
Lys Ala Glu Leu Thr Cys Asn Gly Val Arg Asp Lys Thr Ala Tyr Ile
      35           40           45
Ser Ile Gln Gln Phe Thr Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe
      50           55           60
Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe
      65           70           75           80
Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg
      85           90           95
Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr
      100          105          110
Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe
      115          120          125
Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile
      130          135          140
Glu Lys Arg Val Pro Asp Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro
      145          150          155          160
Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys
      165          170          175
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu
      180          185          190
Tyr Met Gln Gln Asn Leu Val Arg Tyr Tyr Glu Leu Asp Pro Tyr Lys
      195          200          205
Ser Leu Leu Asp Asn Leu Arg Asn Lys Val Ile
      210          215

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&lt;210&gt; 3301

&lt;211&gt; 2109

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3301

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600

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2109

&lt;210&gt; 3302



&lt;211&gt; 323

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3302

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Val Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val
      20           25           30
Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
 35           40           45
Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
 50           55           60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
 65           70           75           80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
      85           90           95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro
      100           105           110
Met Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala
      115           120           125
Pro Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met
      130           135           140
Ala Ser Met Glu Ser Pro Xaa Val Asn Ala Phe Pro Ala Gln Asn Asn
 145           150           155           160
Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
      165           170           175
Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro
      180           185           190
Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
      195           200           205
Pro Gly Trp Ala Thr Leu Gln Ile Gln Pro Gln Thr Thr Ser Val Ser
      210           215           220
Ala Val Leu Gln Thr Gln Ala Gly Arg Gln Gly Ser Cys Lys Gln Pro
 225           230           235           240
Gly Gly Asp Lys Glu Lys Ser Leu Leu Gly Ser Leu Ser Phe Pro Gly
      245           250           255
His Val Ala Asn Ser Ala Ile Pro Ser Ser Arg Ala Ser Ala Ser Gly
      260           265           270
Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser
      275           280           285
His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala
      290           295           300
Gln Cys Val Leu Thr Met Ala Gly Gly Gln Val Phe Leu Leu Glu Ala
 305           310           315           320
Lys Tyr Tyr

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&lt;210&gt; 3303

&lt;211&gt; 699

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3303

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 699

&lt;210&gt; 3304

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3304

Pro	Arg	Lys	Arg	Asp	Phe	Thr	Asn	Glu	Ala	Pro	Pro	Ala	Pro	Leu	Pro
1				5				10						15	
Asp	Ala	Ser	Ala	Ser	Pro	Leu	Ser	Pro	His	Arg	Arg	Ala	Lys	Ser	Leu
			20					25					30		
Asp	Arg	Arg	Ser	Thr	Glu	Pro	Ser	Val	Thr	Pro	Asp	Leu	Leu	Asn	Phe
			35					40				45			
Lys	Lys	Gly	Trp	Leu	Thr	Lys	Gln	Tyr	Glu	Asp	Gly	Gln	Trp	Lys	Lys
			50				55				60				
His	Trp	Phe	Val	Leu	Ala	Asp	Gln	Ser	Leu	Arg	Tyr	Tyr	Arg	Asp	Ser
65					70					75				80	
Val	Ala	Glu	Glu	Ala	Ala	Asp	Leu	Asp	Gly	Glu	Ile	Asp	Leu	Ser	Ala
				85					90					95	
Cys	Tyr	Asp	Val	Thr	Glu	Tyr	Pro	Val	Gln	Arg	Asn	Tyr	Gly	Phe	Gln
			100					105					110		
Ile	His	Thr	Lys	Glu	Gly	Glu	Phe	Thr	Leu	Ser	Ala	Met	Thr	Ser	Gly
			115				120					125			
Ile	Arg	Arg	Asn	Trp	Ile	Gln	Thr	Ile	Met	Lys	His	Val	His	Pro	Thr
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Thr	Ala	Pro	Asp	Val	Thr	Ser	Ser	Leu	Pro	Glu	Glu	Lys	Asn	Lys	Ser
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Ser	Cys	Ser	Phe	Glu	Thr	Cys	Pro	Arg	Ser	Thr	Glu	Lys	Gln	Glu	Ala
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Glu	Leu	Gly	Glu	Pro	Asp	Pro	Glu	Gln	Lys	Arg	Ser	Arg	Ala	Arg	Glu

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Arg	Arg	Arg	Glu	Gly	Arg
		Ser	Lys	Thr	Phe
				Asp	Trp
				Ala	Glu
				Phe	Arg
	195		200		205
Pro	Ile	Gln	Gln	Ala	Leu
		Ala	Gln	Glu	Arg
				Val	Gly
				Gly	Val
				Gly	Pro
	210		215		220
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		Leu	Arg	Pro	
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&lt;210&gt; 3305

&lt;211&gt; 2717

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3305

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1200

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&lt;210&gt; 3306

<211> 319  
 <212> PRT  
 <213> Homo sapiens

<400> 3306

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Ile Ser Leu Val Met Lys Thr Pro Arg Val Ala Lys Asn Glu Ala Leu
 35           40           45
Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg
 50           55           60
Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe
 65           70           75           80
Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro
 85           90           95
Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg
 100          105          110
Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg
 115          120          125
Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp
 130          135          140
Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr
 145          150          155          160
Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln
 165          170          175
Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu
 180          185          190
Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu
 195          200          205
Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala
 210          215          220
Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly
 225          230          235          240
Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg
 245          250          255
Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro
 260          265          270
Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly
 275          280          285
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<210> 3307  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 3307

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<210> 3308

<211> 110

<212> PRT

<213> Homo sapiens

<400> 3308

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		20					25						30		
Pro	Arg	Trp	Glu	Pro	Cys	Leu	Gly	Gln	Gly	Gly	Arg	Val	Asp	Gly	Ser
		35					40					45			
Trp	Asp	Cys	Asp	Ile	Gly	Arg	Arg	Gly	Arg	Ser	Pro	Ala	Leu	Ser	Ser
	50					55					60				
Ala	Gly	Trp	Ala	Gly	Ile	His	Leu	Ala	Ala	Ser	Gln	Gly	Leu	Cys	Pro
65					70					75				80	
Ala	Gly	Trp	Ser	Leu	Cys	Cys	Pro	Asn	Gln	Val	Ser	Thr	Phe	Pro	Ala
			85						90					95	
Pro	Met	Arg	Arg	Glu	Gly	Gly	Arg	Trp	Trp	Leu	Gly	Trp	Arg		
			100					105					110		

<210> 3309

<211> 737

<212> DNA

<213> Homo sapiens

<400> 3309

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 360  
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<210> 3310

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3310

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			20					25					30		
Ala	Gln	Leu	Glu	Glu	Gln	Phe	Tyr	Leu	Gln	Ala	Leu	Lys	Leu	Pro	Asn
		35					40					45			
Gln	Thr	His	Pro	Asp	Val	Pro	Val	Gly	Asp	Glu	Ser	Gln	Ala	Arg	Val
	50					55					60				
Leu	His	Met	Val	Gly	Asp	Lys	Pro	Val	Phe	Ser	Phe	Gln	Pro	Arg	Gly
65					70					75				80	
His	Leu	Glu	Ile	Gly	Glu	Lys	Leu	Asp	Ile	Ile	Arg	Gln	Lys	Arg	Leu
			85						90					95	
Ser	His	Val	Ser	Gly	His	Arg	Ser	Tyr	Tyr	Leu	Arg	Gly	Ala	Gly	Ala
			100					105					110		
Leu	Leu	Gln	His	Gly	Leu	Val	Asn	Phe	Thr	Phe	Asn	Lys	Leu	Leu	Arg
		115					120					125			
Arg	Gly	Phe	Thr	Pro	Met	Thr	Val	Pro	Asp	Leu	Leu	Arg	Gly	Ala	Val
	130					135						140			
Phe	Glu	Gly	Cys	Gly	Met	Thr	Pro	Asn	Ala	Asn	Pro	Ser	Gln	Ile	Tyr
145					150					155				160	
Asn	Ile	Asp	Pro	Ala	Arg	Phe	Lys	Asp	Leu	Asn	Leu	Ala	Gly	Thr	Ala
			165						170					175	
Glu	Val	Gly	Leu	Ala	Gly	Tyr	Phe	Met	Asp	His	Thr	Val	Ala	Phe	Arg
		180						185					190		
Asp	Leu	Pro	Val	Arg	Met	Val	Cys	Ser	Ser	Thr	Cys	Tyr	Arg	Ala	Glu
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<210> 3311

<211> 486

<212> DNA

<213> Homo sapiens

<400> 3311

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<210> 3312

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3312

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Ala	Glu	Gly	Gly	Tyr	Gln	Arg	Tyr	Gly	Val	Arg	Ser	Tyr	Leu	His	Gln
			20					25					30		
Phe	Tyr	Glu	Asp	Cys	Thr	Ala	Ser	Ile	Trp	Glu	Tyr	Glu	Asp	Asp	Phe
		35					40					45			
Gln	Ile	Gln	Arg	Ser	Pro	Asn	Arg	Trp	Ser	Ser	Val	Phe	Trp	Lys	Val
	50					55					60				
Gly	Leu	Ile	Ser	Gly	Thr	Val	Phe	Val	Ile	Leu	Gly	Leu	Thr	Val	Leu
65					70				75					80	
Ala	Val	Gly	Phe	Leu	Val	Pro	Pro	Lys	Ile	Glu	Ala	Phe	Gly	Glu	Ala
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Asp	Phe	Val	Val	Val	Asp										
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<210> 3313

<211> 1791

<212> DNA

<213> Homo sapiens

<400> 3313

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 300



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1791

&lt;210&gt; 3314

&lt;211&gt; 537

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3314

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 Ala Arg Thr Ala Val Lys Arg Arg Pro Gly Ala Gly Arg Val Gly Gly  
 35 40 45  
 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His  
 50 55 60  
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu  
 65 70 75 80  
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr  
 85 90 95  
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu  
 100 105 110  
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp  
 115 120 125  
 Glu Pro Val Tyr Ile Ala Gly Gln Gln Ala Phe Phe Asn Tyr Ser Thr  
 130 135 140  
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly  
 145 150 155 160  
 Asn Lys Val Leu Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr  
 165 170 175  
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg  
 180 185 190  
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu  
 195 200 205  
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Ala Leu Asn Gly Ala Asp  
 210 215 220  
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr  
 225 230 235 240  
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys  
 245 250 255  
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala  
 260 265 270  
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser  
 275 280 285  
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg  
 290 295 300  
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser  
 305 310 315 320  
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly  
 325 330 335  
 Leu His Gln Leu Lys Met Asn Cys Ser Arg Val Phe Asn Leu Phe Cys  
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 355 360 365  
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val  
 370 375 380  
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys  
 385 390 395 400  
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

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Phe	Thr	Ser	Ala	Gly	Gln	Ala	Ser	Lys	Asn	Ile	Ile	Gln	Pro	Pro	Ser	
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Cys	Val	Leu	His	Tyr	Tyr	Asn	Val	Pro	Leu	Cys	Val	Thr	Glu	Glu	Thr	
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Phe	Thr	Lys	Leu	Cys	Asn	Asp	His	Glu	Val	Leu	Thr	Phe	Ile	Lys	Tyr	
465								470				475				
Lys	Val	Phe	Asp	Ala	Lys	Pro	Ser	Ala	Lys	Thr	Leu	Ser	Gly	Leu	Leu	
485								490				495				
Glu	Trp	Glu	Cys	Lys	Thr	Asp	Ala	Val	Glu	Ala	Leu	Thr	Ala	Leu	Asn	
500								505				510				
His	Tyr	Gln	Ile	Arg	Val	Pro	Asn	Gly	Ser	Asn	Pro	Tyr	Thr	Leu	Lys	
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<210> 3315

<211> 934

<212> DNA

<213> Homo sapiens

<400> 3315

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240	accagacacc	atgcagaggt	cgtgaagaag	gtgaatgaga	tgatcgtcac
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360	ctgatcttaa	ttggaaatga	actagacctt	gcgtgtggag	agagaattcg
420	gtcctgctgg	ttggggcaga	caacttcacg	ctgcttggca	agccactcct
480	cttgttcgag	tagaagccac	agtcattgaa	aagacagaat	catggccaag
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<213> Homo sapiens

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Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu  
35 40 45  
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys  
50 55 60  
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val  
65 70 75 80  
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile  
85 90 95  
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu  
100 105 110  
Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys  
115 120 125  
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu  
130 135 140  
Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys  
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<212> DNA  
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240  
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300  
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420

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 720  
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&lt;210&gt; 3318

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3318

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		20					25					30			
Glu	Lys	Arg	Glu	Glu	Arg	Arg	Arg	Glu	Leu	Glu	Lys	Lys	Arg	Leu	

35 40 45  
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 50 55 60  
 Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile  
 65 70 75 80  
 Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys  
 85 90 95  
 Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu  
 100 105 110  
 Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser  
 115 120 125  
 Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His  
 130 135 140  
 Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr  
 145 150 155 160  
 His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg  
 165 170 175  
 Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly  
 180 185 190  
 Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu  
 195 200 205  
 Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala  
 210 215 220  
 Pro Arg Lys Glu Arg Leu Ala Asn Lys Val Phe Ile Lys Pro Lys Lys  
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&lt;210&gt; 3319

&lt;211&gt; 1541

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3319

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 1541

&lt;210&gt; 3320

&lt;211&gt; 256

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3320

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			20					25					30		
Glu	Tyr	Val	Arg	Trp	Met	Met	Tyr	Trp	Ile	Val	Phe	Ala	Leu	Phe	Met
		35					40					45			
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		50				55					60				
Tyr	Glu	Ile	Lys	Met	Ala	Phe	Val	Leu	Trp	Leu	Leu	Ser	Pro	Tyr	Thr
65					70					75				80	
Lys	Gly	Ala	Ser	Leu	Leu	Tyr	Arg	Lys	Phe	Val	His	Pro	Ser	Leu	Ser
				85					90					95	
Arg	His	Glu	Lys	Glu	Ile	Asp	Ala	Tyr	Ile	Val	Gln	Ala	Lys	Glu	Arg
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<210> 3321
<211> 1536
<212> DNA
<213> Homo sapiens
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900

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<210> 3322

<211> 454

<212> PRT

<213> Homo sapiens

<400> 3322

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			20					25					30		
Thr	Pro	Thr	Ser	Val	Ile	Gln	Val	Thr	Asn	Leu	Ser	Ser	Ala	Val	Thr
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Ser	Glu	Gln	Met	Arg	Thr	Leu	Phe	Ser	Phe	Leu	Gly	Glu	Ile	Glu	Glu
			50				55					60			
Leu	Arg	Leu	Tyr	Pro	Pro	Asp	Asn	Ala	Pro	Leu	Ala	Phe	Ser	Ser	Lys
65					70					75				80	
Val	Cys	Tyr	Val	Lys	Phe	Arg	Asp	Pro	Ser	Ser	Val	Gly	Val	Ala	Gln
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His	Leu	Thr	Asn	Thr	Val	Phe	Ile	Asp	Arg	Ala	Leu	Ile	Val	Val	Pro
			100					105					110		
Cys	Ala	Glu	Gly	Lys	Ile	Pro	Glu	Glu	Ser	Lys	Ala	Leu	Ser	Leu	Leu
			115				120					125			
Ala	Pro	Ala	Pro	Thr	Met	Thr	Ser	Leu	Met	Pro	Gly	Ala	Gly	Leu	Leu
			130				135					140			
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Ser	Leu	Gly	Ala	Ile	Pro	Ala	Ala	Ala	Leu	Asp	Pro	Asn	Ile	Ala	Thr
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Leu	Gly	Glu	Ile	Pro	Gln	Pro	Pro	Leu	Met	Gly	Asn	Val	Asp	Pro	Ser
			180					185					190		
Lys	Ile	Asp	Glu	Ile	Arg	Arg	Thr	Val	Tyr	Val	Gly	Asn	Leu	Asn	Ser

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Glu	Val	Lys	Phe	Ala	Asp	Gly	Arg	Ile	Asn	His	Ser	Asn	Asn	Ala	Ile		
225					230					235					240		
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				245					250					255			
Glu	Val	Met	Lys	Arg	Val	Arg	Glu	Ala	Gln	Ser	Phe	Ile	Ser	Ala	Ala		
			260					265					270				
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		275					280					285					
Arg	Ser	His	Thr	Arg	Ser	Lys	Ser	Arg	Ser	Ser	Ser	Lys	Ser	His	Ser		
	290					295					300						
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305					310					315					320		
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				325					330					335			
Lys	Arg	Ser	Lys	Ser	Arg	Glu	Arg	Arg	Lys	Ser	Arg	Ser	Arg	Ser	His		
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Ser	Arg	Asp	Lys	Arg	Lys	Asp	Thr	Arg	Glu	Lys	Ile	Lys	Glu	Lys	Glu		
	355						360					365					
Arg	Val	Lys	Glu	Lys	Asp	Arg	Glu	Lys	Glu	Arg	Glu	Arg	Glu	Lys	Glu		
	370					375					380						
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385					390					395					400		
Arg	Glu	Lys	Asp	Arg	Glu	Lys	Asp	Lys	Glu	Lys	Asp	Arg	Glu	Arg	Glu		
			405						410					415			
Arg	Glu	Lys	Glu	His	Glu	Lys	Asp	Arg	Asp	Lys	Glu	Lys	Glu	Lys	Glu		
			420					425				430					
Gln	Asp	Lys	Glu	Lys	Glu	Arg	Glu	Lys	Asp	Arg	Ser	Lys	Glu	Ile	Asp		
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Glu	Lys	Lys	Lys	Glu	Gly												
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<210> 3323

<211> 949

<212> DNA

<213> Homo sapiens

**<400> 3323**

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420

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<210> 3324

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3324

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	20						25				30				
Thr	Thr	Val	Ile	Pro	Arg	Val	Tyr	Thr	Tyr	Tyr	Val	Ser	Thr	Val	Leu
	35					40					45				
Phe	Ala	Ile	Phe	Gly	Ile	Arg	Met	Leu	Arg	Glu	Gly	Leu	Lys	Met	Ser
	50				55					60					
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65				70						75				80	
Lys	Lys	Asp	Glu	Glu	Val	Ser	His	Gly	Thr	Val	Asp	Leu	Asp	Gln	Lys
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<210> 3325

<211> 5055

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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<210> 3332  
<211> 128  
<212> PRT  
<213> Homo sapiens

<400> 3332  
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35 40 45  
Met Ser Ser Cys Arg Val Asp Lys Pro Ser Glu Ile Val Asp Val Gly  
50 55 60  
Asp Lys Val Trp Val Lys Leu Ile Gly Arg Glu Met Lys Asn Asp Arg  
65 70 75 80  
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<210> 3333  
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<213> Homo sapiens

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2280

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<210> 3334  
 <211> 672  
 <212> PRT  
 <213> Homo sapiens

<400> 3334  
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 35 40 45  
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 Gln Thr Glu Ala Leu Glu Phe Asn Pro Ser Ala Asn Pro Glu Ala Ser  
 85 90 95  
 Thr Ile Phe Gln Arg Asn Ser Gln Thr Asp Val Val Glu Ile Arg Arg  
 100 105 110  
 Ser Asn Cys Thr Asn His Val Ser Ala Val Arg Phe Ser Gln Gln Tyr  
 115 120 125  
 Ser Leu Cys Ser Thr Ile Phe Leu Asp Asp Ser Thr Ala Ile Gln His  
 130 135 140  
 Tyr Leu Thr Met Thr Ile Ile Ser Val Thr Leu Glu Ile Pro His His  
 145 150 155 160  
 Ile Thr Gln Arg Asp Ala Asp Arg Thr Leu Ser Ile Pro Asp Glu Gln  
 165 170 175  
 Leu His Ser Phe Ala Val Ser Thr Val His Ile Met Lys Lys Arg Asn  
 180 185 190  
 Gly Gly Gly Ser Leu Asn Asn Tyr Ser Ser Ser Ile Pro Ser Thr Pro  
 195 200 205  
 Ser Thr Ser Gln Glu Asp Pro Gln Phe Ser Val Pro Pro Thr Ala Asn  
 210 215 220  
 Thr Pro Thr Pro Val Cys Lys Arg Ser Met Arg Trp Ser Asn Leu Phe  
 225 230 235 240  
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 245 250 255  
 Asn His Ala Asp Thr Ile Gly Ser Gly Arg Ala Ile Pro Ile Lys Gln  
 260 265 270  
 Gly Met Leu Leu Lys Arg Ser Gly Lys Trp Leu Lys Thr Trp Lys Lys  
 275 280 285  
 Lys Tyr Val Thr Leu Cys Ser Asn Gly Met Leu Thr Tyr Tyr Ser Ser  
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 Thr Ser Thr Ile Lys Val Pro Gly Lys Trp Pro Ser Leu Ala Thr Ser

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Met Asp Thr Gly Leu Gly Asp Ser Ile Cys Phe Ser Pro Ser Ile Ser
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Ser Thr Thr Ser Pro Lys Leu Asn Pro Pro Pro Ser Pro His Ala Asn
          370          375          380
Lys Lys Lys His Leu Lys Lys Lys Ser Thr Asn Asn Phe Met Ile Val
          385          390          395          400
Ser Ala Thr Gly Gln Thr Trp His Phe Glu Ala Thr Thr Tyr Glu Glu
          405          410          415
Arg Asp Ala Trp Val Gln Ala Ile Gln Ser Gln Ile Leu Ala Ser Leu
          420          425          430
Gln Ser Cys Glu Ser Ser Lys Ser Lys Ser Gln Leu Thr Ser Gln Ser
          435          440          445
Glu Ala Met Ala Leu Gln Ser Ile Gln Asn Met Arg Gly Asn Ala His
          450          455          460
Cys Val Asp Cys Glu Thr Gln Asn Pro Lys Trp Ala Ser Leu Asn Leu
          465          470          475          480
Gly Val Leu Met Cys Ile Glu Cys Ser Gly Ile His Arg Ser Leu Gly
          485          490          495
Thr Arg Leu Ser Arg Val Arg Ser Leu Glu Leu Asp Asp Trp Pro Val
          500          505          510
Glu Leu Arg Lys Val Met Ser Ser Ile Gly Asn Glu Leu Ala Asn Ser
          515          520          525
Ile Trp Glu Glu Ser Ser Gln Gly Arg Thr Lys Pro Ser Val Asp Ser
          530          535          540
Thr Arg Glu Glu Lys Glu Arg Trp Ile Arg Ser Lys Tyr Glu Glu Lys
          545          550          555          560
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          565          570          575
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          580          585          590
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          595          600          605
Asp Gly Cys Thr Ala Leu His Leu Ala Cys Arg Lys Gly Asn Val Val
          610          615          620
Leu Ala Gln Leu Leu Ile Trp Tyr Gly Val Asp Val Met Ala Arg Asp
          625          630          635          640
Ala His Gly Asn Thr Ala Leu Thr Tyr Ala Arg Gln Ala Ser Ser Gln
          645          650          655
Glu Cys Ile Asn Val Leu Leu Gln Tyr Gly Cys Pro Asp Lys Cys Val
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&lt;210&gt; 3335

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3335

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 120



cccagactgc ttgttgaagg gggtgaggtg ggctgccc aaacgggcca gcttctcatc  
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 240  
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 300  
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 360  
 tgccggggcg ccattctctt gcgggggtgtg cccagtggag ccaggcagtg cgactacacc  
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<210> 3336

<211> 59

<212> PRT

<213> Homo sapiens

<400> 3336

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Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile	Ser	Leu	Arg	Gly	Val	Pro	Ser
		20						25					30		
Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly	Gln	Tyr	Tyr	Cys	Ser	Pro	Cys
		35					40					45			
His	Trp	Asn	Ala	Leu	Ala	Val	Ile	Pro	Ala	Arg					
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<210> 3337

<211> 679

<212> DNA

<213> Homo sapiens

<400> 3337

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 180  
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 240  
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 300  
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<210> 3338

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3338

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		20						25					30		
Lys	Glu	Val	Arg	Trp	Gly	Ser	Leu	Ser	Leu	Ala	Ser	Lys	Asp	Thr	Asp
	35					40						45			
Arg	Val	Arg	Glu	Arg	Asp	Arg	Glu	Arg	His	Arg	Asp	Arg	Gln	Arg	Pro
	50					55				60					
Lys	Gln	Lys	Arg	Gln	Thr	Ala	Lys	Thr	Lys	Gln	Asn	Gln	Cys	Lys	Leu
65				70						75				80	
Glu	Lys	Lys	Ile	Lys	Leu	Asn	Ile	Arg	Ala	Gly	Lys	Ser	His	Leu	Leu
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<210> 3339

<211> 1341

<212> DNA

<213> Homo sapiens

<400> 3339

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 420  
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 540  
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 600  
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 660

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 720  
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 1260  
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<210> 3340

<211> 86

<212> PRT

<213> Homo sapiens

<400> 3340

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		20					25					30			
Trp	Ala	Gly	Phe	Ile	Ile	Leu	His	Cys	Glu	Ile	Ala	Leu	Gln	Cys	Ile
		35				40					45				
Thr	Thr	Ala	Arg	Arg	Thr	Tyr	Ile	Tyr	Ile	Tyr	Ile	Lys	Asn	Ile	Ser
	50				55				60						
Asp	Ser	Cys	Ile	Gln	Met	Ser	Lys	Val	Phe	Val	Ala	Thr	Tyr	Tyr	Ile
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Ala	Tyr	Thr	Gln	Asn	His										
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<210> 3341

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3341

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 240  
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 1020  
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 1132

&lt;210&gt; 3342

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3342

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Ala	Lys	Ala	Leu	Gly	Ser	Gly	Ile	Ser	Gly	Asn	Asn	Ala	Lys	Arg	Ala
		20						25					30		
Gly	Pro	Phe	Ile	Leu	Gly	Pro	Arg	Leu	Gly	Asn	Ser	Pro	Val	Pro	Ser
		35				40						45			
Ile	Val	Gln	Cys	Leu	Ala	Arg	Lys	Asp	Gly	Thr	Asp	Asp	Phe	Tyr	Gln
	50					55					60				
Leu	Lys	Ile	Leu	Thr	Leu	Glu	Glu	Arg	Gly	Asp	Gln	Gly	Ile	Glu	Ser
65				70					75					80	
Gln	Glu	Glu	Arg	Gln	Gly	Lys	Met	Leu	Leu	His	Thr	Glu	Tyr	Ser	Leu
			85					90						95	
Leu	Ser	Leu	Leu	His	Thr	Gln	Asp	Gly	Val	Val	His	His	His	Gly	Leu

	100		105		110										
Phe	Gln	Asp	Arg	Thr	Cys	Glu	Ile	Val	Glu	Asp	Thr	Glu	Ser	Ser	Arg
	115						120						125		
Met	Val	Lys	Lys	Met	Lys	Lys	Arg	Ile	Cys	Leu	Val	Leu	Asp	Cys	Leu
	130						135					140			
Cys	Ala	His	Asp	Phe	Ser	Asp	Lys	Thr	Ala	Asp	Leu	Ile	Asn	Leu	Gln
	145					150				155					160
His	Tyr	Val	Ile	Lys	Glu	Lys	Arg	Leu	Ser	Glu	Arg	Glu	Thr	Val	Val
				165					170					175	
Ile	Phe	Tyr	Asp	Val	Val	Arg	Val	Val	Glu	Ala	Leu	His	Gln	Lys	Asn
			180					185					190		
Ile	Val	His	Arg	Asp	Leu	Lys	Leu	Gly	Asn	Met	Val	Leu	Asn	Lys	Arg
	195						200					205			
Thr	His	Arg	Ile	Thr	Ile	Thr	Asn	Phe	Cys	Leu	Gly	Lys	His	Leu	Val
	210					215						220			
Ser	Glu	Gly	Asp	Leu	Leu	Lys	Asp	Gln	Arg	Gly	Ser	Pro	Ala	Tyr	Ile
	225				230					235					240
Ser	Pro	Asp	Val	Leu	Ser	Gly	Arg	Pro	Tyr	Arg	Gly	Lys	Pro	Ser	Asp
				245				250					255		
Met	Trp	Ala	Leu	Gly	Val	Val	Leu	Phe	Thr	Met	Leu	Tyr	Gly	Gln	Phe
		260					265						270		
Pro	Phe	Tyr	Asp	Ser	Ile	Pro	Gln	Glu	Leu	Phe	Arg	Lys	Ile	Lys	Ala
		275					280					285			
Ala	Glu	Tyr	Thr	Ile	Pro	Glu	Asp	Gly	Arg	Val	Ser	Glu	Asn	Thr	Val
	290					295					300				
Cys	Leu	Ile	Arg												
	305														

&lt;210&gt; 3343

&lt;211&gt; 594

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3343

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&lt;210&gt; 3344

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3344

```

Arg Val Met Ser His Arg Met Glu Gly Val Gly Gln Leu Pro Ala Ser
 1             5             10             15
Tyr Arg His Asn Arg Pro Leu Leu Ser Gly Val Ser Asp Thr Glu Ala
      20             25             30
Arg Gln Pro Gly Lys Ser Pro Pro Phe Ser Met Asn Trp Val Val Gly
      35             40             45
Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys
      50             55             60
Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala
      65             70             75             80
Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr
      85             90             95
Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser
      100            105            110
Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr
      115            120            125
Trp Val Arg Lys Pro Pro Glu Gln Gln Gln Phe Leu Leu Thr Leu
      130            135            140

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&lt;210&gt; 3345

&lt;211&gt; 1149

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3345

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420
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480
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660

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<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

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			20					25					30		
Glu	Glu	Val	Pro	Asp	Val	Thr	Pro	Glu	Glu	Ala	Leu	Pro	Glu	Leu	Pro
		35					40					45			
Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
	50					55					60				
Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
65					70					75				80	
Asp	Val	Gln	Gln	Leu	Arg	Gln	Ala	Ile	Glu	Glu	Cys	Lys	Gln	Val	Ile
			85						90					95	
Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
		100						105					110		
Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
		115					120					125			
Asp	Glu	Pro	Asn	Ile	Arg	Val	Leu	Leu	Glu	His	Arg	Phe	Tyr	Lys	Glu
	130					135					140				
Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
145					150					155				160	
Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
			165						170					175	
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
		180						185					190		
Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
	195						200					205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
	210					215					220				
Ser	Leu	Arg	Gly	Val	Pro	Ser	Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly

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225          230          235          240
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Glu Ala Gly Val Cys Ser Arg
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<210> 3347

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 3347

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240	ctgactgacc	cagtggacca	gtgtgtggcc	taccatctgg	gccgtgttgg
300	ccagagctgc	agatagaaat	cattgctgac	tacgaggtag	accccaaccg
360	atcctggccc	agacagcagc	ccatgtagct	ggggctgctt	actactacca
420	gtggaggctg	acccatgggg	gaaccagcgc	atatcagggtg	tgtgcataca
480	gggggctggg	ttgccatccg	aggggtagtg	ctgctgccag	ggatagaggt
540	ccacccagaa	aacctcatga	ctgtgtacct	acaagagctg	accgtatcgc
600	ggcttcaatt	tccactggcg	tgattggact	taccgggatg	ctgtgacacc
660	tactcagaag	agcagaaggc	ctacttctcc	actccacctg	cccaacgatt
720	ggcttggctc	agccctcaga	gaagcctagt	tctccctccc	cggaccttcc
780	ccgcccccca	agaagcctgg	gaatcccagc	agagcccgga	gctggctcag
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900	acttgctagg	acttaattgg	ctttggcaaa	gcaaaaaggtt	ttgagtacaa
960	tttgataata	tagtagagat	cttccatgaa	gataacaagg	ctcaaggaag
1020	ccaagataaa	ggccagggaa	ccagaattcc	catctgcctt	caaatgagtt
1080	ttttttttta	gacagagtct	tactctgtca	cctaggctgg	agtgcagtgg
1140	actcactgca	acctctgcct	cctgggctga	ggcagtagaa	tcatttgaac
1200	gagattgcag	tgagccgaga	ttgcatggct	gcactctagc	ctgggtgaca
1260					



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 1380  
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 1740  
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 1920  
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 1980  
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 2160  
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 2220  
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 2267  
 <210> 3348  
 <211> 288  
 <212> PRT  
 <213> Homo sapiens

<400> 3348  
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 Lys Ile Glu Asp Thr Leu Cys Pro Phe Gly Phe Glu Val Tyr Pro Phe  
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 Gln Val Ala Trp Tyr Asn Glu Leu Leu Pro Pro Ala Phe His Leu Pro  
 35 40 45  
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met  
 50 55 60  
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met  
 65 70 75 80  
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val  
 85 90 95  
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu  
 100 105 110

Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His  
           115                          120                          125  
 Val Ala Gly Ala Ala Tyr Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp  
           130                          135                          140  
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe  
 145                          150                          155                          160  
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu  
                           165                          170                          175  
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg  
                           180                          185                          190  
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp  
           195                          200                          205  
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu  
           210                          215                          220  
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu  
 225                          230                          235                          240  
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu  
                           245                          250                          255  
 Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala  
                           260                          265                          270  
 Arg Ser Trp Leu Ser Pro Arg Val Ser Pro Pro Ala Ser Pro Gly Pro  
           275                          280                          285

&lt;210&gt; 3349

&lt;211&gt; 1132

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3349

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 ccggaagccg cgcctgcacc ggcgacatcg cgtctataag ctggtggagg acacgaagca  
 120  
 tcggcccaaa gaaaacctgg agctcatcct gacgcagtcg gtggagagta aggcccgggc  
 180  
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 240  
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 300  
 aagaagctgt ttgaagagga gaaattgctg agacaagaag gaaaattaga gaagatccag  
 360  
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 420  
 aagaacaatg tcaaatggga gctgaaccct gaaatagttg cccgccactt ctttaagaat  
 480  
 cttggtgttg tggttgcccc acatacatta aagttaccag cagagcctat cacacggtgg  
 540  
 ggcgagtatt ggtgtgaggt gacggtaaat gggcttgata ctgtgagagt gcctatgtct  
 600  
 gtcgtgaact ttgagaagcc caagaccaa agatataagt actggtttagc ccagcaagct  
 660  
 gccaaaggcta tggccccccac cagccccccag atctaaatct actctccctc caaggcagca  
 720

aagcagaatc gggagcagtg gagcagaaat gtgcaagcac cctgatctca ctcccagctc  
780  
tgaccaaata cagaatttta gagaacatct gaagacatca gactgcactg cgtatacatg  
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1020  
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1080  
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1132

&lt;210&gt; 3350

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3350

Gly	Pro	Gly	Arg	Gly	Ala	Ser	Ser	Gln	Ala	Asp	Val	Gly	Val	Arg	Gly
1				5				10						15	
Asp	Leu	Val	Ser	Val	Lys	Lys	Ser	Leu	Gly	Arg	Asn	Arg	Leu	Leu	Pro
			20					25					30		
Gln	Gly	Leu	Ala	Val	Tyr	Ala	Ser	Pro	Glu	Asn	Lys	Lys	Leu	Phe	Glu
		35					40					45			
Glu	Glu	Lys	Leu	Leu	Arg	Gln	Glu	Gly	Lys	Leu	Glu	Lys	Ile	Gln	Thr
	50					55				60					
Lys	Ala	Gly	Glu	Ala	Thr	Val	Lys	Phe	Leu	Lys	Ser	Cys	Arg	Leu	Glu
65					70				75					80	
Val	Gly	Met	Lys	Asn	Asn	Val	Lys	Trp	Glu	Leu	Asn	Pro	Glu	Ile	Val
			85					90					95		
Ala	Arg	His	Phe	Phe	Lys	Asn	Leu	Gly	Val	Val	Val	Ala	Pro	His	Thr
			100					105					110		
Leu	Lys	Leu	Pro	Ala	Glu	Pro	Ile	Thr	Arg	Trp	Gly	Glu	Tyr	Trp	Cys
		115					120					125			
Glu	Val	Thr	Val	Asn	Gly	Leu	Asp	Thr	Val	Arg	Val	Pro	Met	Ser	Val
	130					135					140				
Val	Asn	Phe	Glu	Lys	Pro	Lys	Thr	Lys	Arg	Tyr	Lys	Tyr	Trp	Leu	Ala
145				150					155					160	
Gln	Gln	Ala	Ala	Lys	Ala	Met	Ala	Pro	Thr	Ser	Pro	Gln	Ile		
				165					170						

&lt;210&gt; 3351

&lt;211&gt; 1422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3351

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120

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 180  
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 240  
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 360  
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 420  
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 480  
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 gaagcagata ttcagtcca gcccgagatt ctgctgccag ttcacacct ccgttacgc  
 720  
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 1320  
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 1422

<210> 3352

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3352

Met	Trp	Pro	Ser	Gln	Leu	Leu	Ile	Phe	Met	Met	Leu	Leu	Ala	Pro	Ile
1				5				10					15		
Ile	His	Gly	Gly	Lys	His	Ser	Glu	Arg	His	Pro	Ala	Leu	Ala	Ala	Ala

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          20          25          30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
          35          40          45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
          50          55          60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
65          70          75          80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
          85          90          95
Ser

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&lt;210&gt; 3353

&lt;211&gt; 420

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3353

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120
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180
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240
accatgactc acctgggcat cagcaggggc atgggccttg gccagggcta tgatgcacca
300
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360
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420

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&lt;210&gt; 3354

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3354

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Xaa Lys Leu Ser Ser Ser Ser Arg Pro Arg Ser Cys Glu Val Pro
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Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
          20          25          30
Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
          35          40          45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
          50          55          60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
65          70          75          80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
          85          90          95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
          100          105

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<210> 3355  
 <211> 474  
 <212> DNA  
 <213> Homo sapiens

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 120  
 gacaagagtc atgcttttct ccccatcatt ccaaacaccc agagaggtca gctagaagac  
 180  
 agactgaaca accaggcgcg taccatagct ttccttcttg aacaagcctt ccgcatcaag  
 240  
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 300  
 aggaagttac tggaaagcca catccagacc atcaccagca tcgtcaaaaa actcagccaa  
 360  
 aatattgaga ttttagaaga ccaaataaga gctcgagatc aggcggccac aggaactaac  
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 474

<210> 3356  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 3356  
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 His Ala Phe Leu Pro Ile Ile Pro Asn Thr Gln Arg Gly Gln Leu Glu  
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 Asp Arg Leu Asn Asn Gln Ala Arg Thr Ile Ala Phe Leu Leu Glu Gln  
 35 40 45  
 Ala Phe Arg Ile Lys Glu Asp Ile Ser Ala Cys Leu Gln Gly Thr His  
 50 55 60  
 Gly Phe Arg Lys Glu Glu Ser Leu Ala Arg Lys Leu Leu Glu Ser His  
 65 70 75 80  
 Ile Gln Thr Ile Thr Ser Ile Val Lys Lys Leu Ser Gln Asn Ile Glu  
 85 90 95  
 Ile Leu Glu Asp Gln Ile Arg Ala Arg Asp Gln Ala Ala Thr Gly Thr  
 100 105 110  
 Asn Phe Ala Val His Glu Ile Asn Ile Lys His Leu Gln Gly Val Gly  
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 Arg Ser Phe  
 130

<210> 3357  
 <211> 2268  
 <212> DNA  
 <213> Homo sapiens

<400> 3357

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120  
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180  
aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttgcca cttgaatgat  
240  
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420  
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480  
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660  
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<210> 3358

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3358

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Asp	Met	Ala	Asp	Glu	Ala	Tyr	Ser	Ile	Gly	Pro	Ala	Pro	Ser	Gln	Gln
			20					25					30		
Ser	Tyr	Leu	Ser	Met	Glu	Lys	Ile	Ile	Gln	Val	Ala	Lys	Thr	Ser	Ala
		35				40						45			
Ala	Gln	Ala	Ile	His	Pro	Gly	Cys	Gly	Phe	Leu	Ser	Glu	Asn	Met	Glu
	50				55					60					
Phe	Ala	Glu	Leu	Cys	Lys	Gln	Glu	Gly	Ile	Ile	Phe	Ile	Gly	Pro	Pro
65					70				75					80	
Pro	Ser	Ala	Ile	Arg	Asp	Met	Gly	Ile	Lys	Ser	Thr	Ser	Lys	Ser	Ile
			85					90						95	
Met	Ala	Ala	Ala	Gly	Val	Pro	Val	Val	Glu	Gly	Tyr	His	Gly	Glu	Asp
			100					105					110		
Gln	Ser	Asp	Gln	Cys	Leu	Lys	Glu	His	Ala	Arg	Arg	Ile	Gly	Tyr	Pro
		115					120					125			
Val	Met	Ile	Lys	Ala	Val	Arg	Gly	Gly	Gly	Gly	Lys	Gly	Met	Arg	Ile
	130					135					140				
Val	Arg	Ser	Glu	Gln	Glu	Phe	Gln	Glu	Gln	Leu	Glu	Ser	Ala	Arg	Arg
145					150					155				160	
Glu	Ala	Lys	Lys	Ser	Phe	Asn	Asp	Asp	Ala	Met	Leu	Ile	Glu	Lys	Phe
			165					170						175	
Val	Asp	Thr	Pro	Arg	His	Val	Glu	Val	Gln	Val	Phe	Gly	Asp	His	His
			180					185					190		
Gly	Asn	Ala	Val	Tyr	Leu	Phe	Glu	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg



195	200	205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu		
210	215	220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val		
225	230	235
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His		
245	250	255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro		
260	265	270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg		
275	280	285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu		
290	295	300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn		
305	310	315
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg		
325	330	335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu		
340	345	350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala		
355	360	365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln		
370	375	380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu		
385	390	395
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile		
405	410	415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Lys		
420	425	430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala		
435	440	445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe		
450	455	460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met		
465	470	475
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly		
485	490	

&lt;210&gt; 3359

&lt;211&gt; 652

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3359

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120

ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctctttctga  
180

gggagggtaat. taaaaaacag tggaatggaa aaacagtgc gtagtcatcc tgtaatatgc  
240

tccttgtaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt  
300

cgcatcttac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact  
 360  
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 420  
 gttataaaga aagatcatca aagtagaaat ttgaaatatg cttcctggaa ggaattctct  
 480  
 gatttcatga agtgggtccat tcctgccttt ctttatttcc tggataaactt gattgtcttc  
 540  
 tatgtcctgt cctatcttca accagccatg gctgttatct tctcaaattt tagcattata  
 600  
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<210> 3360

<211> 149

<212> PRT

<213> Homo sapiens

<400> 3360

Met	Glu	Lys	Gln	Cys	Cys	Ser	His	Pro	Val	Ile	Cys	Ser	Leu	Ser	Thr
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Met	Tyr	Thr	Phe	Leu	Leu	Gly	Ala	Ile	Phe	Ile	Ala	Leu	Ser	Ser	Ser
			20					25					30		
Arg	Ile	Leu	Leu	Val	Lys	Tyr	Ser	Ala	Asn	Glu	Glu	Asn	Lys	Tyr	Asp
			35				40					45			
Tyr	Leu	Pro	Thr	Thr	Val	Asn	Val	Cys	Ser	Glu	Leu	Val	Lys	Leu	Val
			50			55					60				
Phe	Cys	Val	Leu	Val	Ser	Phe	Cys	Val	Ile	Lys	Lys	Asp	His	Gln	Ser
65					70					75				80	
Arg	Asn	Leu	Lys	Tyr	Ala	Ser	Trp	Lys	Glu	Phe	Ser	Asp	Phe	Met	Lys
			85					90						95	
Trp	Ser	Ile	Pro	Ala	Phe	Leu	Tyr	Phe	Leu	Asp	Asn	Leu	Ile	Val	Phe
			100					105					110		
Tyr	Val	Leu	Ser	Tyr	Leu	Gln	Pro	Ala	Met	Ala	Val	Ile	Phe	Ser	Asn
			115			120						125			
Phe	Ser	Ile	Ile	Thr	Thr	Ala	Leu	Leu	Phe	Arg	Ile	Val	Leu	Lys	Arg
			130			135						140			
Arg	Leu	Asn	Trp	Ile											
145															

<210> 3361

<211> 1040

<212> DNA

<213> Homo sapiens

<400> 3361

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 120  
 ggagtcgcct gcgcgcgcag cggaggccag tgcgccggcg catagcgagc ccgggtctgt  
 180  
 gatcgccgag gcgggagtga agatagtcca agtcctaaga gacagcgctt ctctcattca  
 240

gtctttgatt atacatcagc atcaccagct ccctcaccac caatgcgacc atgggagatg  
 300  
 acatcaaata ggcagccccc ttcagttcga ccaagccaac atcacttctc aggggaacga  
 360  
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 420  
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 480  
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 540  
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 600  
 cagctccatc aaggaacagt ccctgtttct tacacagtaa caacagtggc accacatggg  
 660  
 attccactct gcacaggcca gcacatccct gcttgtagta cacagcaggt cccaggatgc  
 720  
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 780  
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 840  
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<210> 3362

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3362

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Pro	Ser	Gln	His	Phe	Ser	Gly	Glu	Arg	Cys	Asn	Thr	Pro	Ala	Arg	
		20					25					30			
Asn	Arg	Arg	Ser	Pro	Pro	Val	Arg	Arg	Gln	Arg	Gly	Arg	Arg	Asp	Arg
		35					40					45			
Leu	Ser	Arg	His	Asn	Ser	Ile	Ser	Gln	Asp	Glu	Asn	Tyr	His	His	Leu
	50					55					60				
Pro	Tyr	Ala	Gln	Gln	Gln	Ala	Ile	Glu	Glu	Pro	Arg	Ala	Phe	His	Pro
65					70					75				80	
Pro	Asn	Val	Ser	Pro	Arg	Leu	Leu	His	Pro	Ala	Ala	His	Pro	Pro	Gln
				85					90					95	
Gln	Asn	Ala	Val	Met	Val	Asp	Ile	His	Asp	Gln	Leu	His	Gln	Gly	Thr
		100						105					110		
Val	Pro	Val	Ser	Tyr	Thr	Val	Thr	Val	Ala	Pro	His	Gly	Ile	Pro	
		115					120					125			
Leu	Cys	Thr	Gly	Gln	His	Ile	Pro	Ala	Cys	Ser	Thr	Gln	Gln	Val	Pro
	130					135					140				
Gly	Cys	Ser	Val	Val	Phe	Ser	Gly	Gln	His	Leu	Pro	Val	Cys	Ser	Val

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145          150          155          160
Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
          165          170          175
Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
          180          185          190
Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Pro Gly
          195          200          205
Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
          210          215          220
Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
225          230          235          240
Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
          245          250

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<210> 3363  
 <211> 718  
 <212> DNA  
 <213> Homo sapiens

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<400> 3363
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120
gtagctcagg agtgtctccg gagcccactg gagaagcccc ccaacggcct cctcttcccc
180
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240
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300
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360
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420
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480
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540
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600
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718

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<210> 3364  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

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<400> 3364
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Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

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Pro	Gly	Leu	Leu	Met	Glu	Ser	Tyr	Ala	Pro	Ser	Pro	Arg	Leu	Gly	Cys
	35						40					45			
Thr	Phe	Thr	Asp	Cys	Gln	Lys	Phe	Leu	Ile	Leu	Leu	Trp	Gly	Pro	Gly
	50					55					60				
Lys	Glu	Ser	Pro	Thr	Val	Trp	Ser	Cys	Pro	Leu	Asp	Ser	Thr	His	His
65					70					75				80	
Ser	Gly	Ser	Asn	Cys	Thr	Ser	Leu	Gly	Ser	Ser	Ala	Gly	Cys	Ile	Gly
			85					90					95		
Ser	Gly	Leu	Phe	Arg	Cys	Cys	Cys	Gly	Arg	Thr	Asp	Ser	Pro	Arg	Ala
			100					105					110		
Gly	Gly	Arg	Gly	Gly	Arg	Trp	Gly	Ala	Ser	Pro	Val	Gly	Ser	Gly	Asp
	115						120					125			
Thr	Pro	Glu	Leu	Leu	Gly	Arg	Gln	Cys	His	Pro	Lys	Asn	His	Gly	His
	130					135					140				
Asp	Gly	Val	Pro	Asp	His	Ala	Gly	Gln	Pro	Ile	Pro	His	His	Gln	Arg
145					150					155				160	
Ser	Trp	Ala													

&lt;210&gt; 3365

&lt;211&gt; 2389

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3365

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120  
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480  
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540  
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600  
tgcaaggat ccatctgtct tagcaaggct gtcacacac ctacgattt tgatgaatgt  
660  
cgatttgata ttagtgtaaa tgatagtgtt tggtatcttc gtgctcagga tccagatcat  
720  
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780  
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840

gcaacatcca cctcttcatt caagaaaggc cacagtttac gtgagaagtt ggctgaaatg  
900  
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960  
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1020  
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1080  
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1620  
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1680  
ggagaaatga aggtatacag aagagaagta gaagaaaatg ggattgttct ggatccttta  
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gctgataatg caatcatcat ttatcaaaca cacaagaggg tgtggcctgc ttctcagcga  
1920  
gacgtattat atctttctgt cattcgaaa ataccagcct tgactgaaaa tgaccctgaa  
1980  
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2280  
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2389

&lt;210&gt; 3366

&lt;211&gt; 624

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3366

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Met Ser Asp Asn Gln Asn Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
 1          5          10          15
Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
      20          25          30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
      35          40          45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
      50          55          60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
      65          70          75          80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
      85          90          95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
      100          105          110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
      115          120          125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
      130          135          140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
      145          150          155          160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
      165          170          175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
      180          185          190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
      195          200          205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
      210          215          220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
      225          230          235          240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
      245          250          255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
      260          265          270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
      275          280          285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
      290          295          300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
      305          310          315          320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
      325          330          335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
      340          345          350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
      355          360          365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
      370          375          380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

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385          390          395          400
Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
          405          410          415
Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
          420          425          430
Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
          435          440          445
Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
          450          455          460
Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
465          470          475          480
Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
          485          490          495
Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
          500          505          510
Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
          515          520          525
Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
          530          535          540
Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
545          550          555          560
Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
          565          570          575
Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
          580          585          590
Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
          595          600          605
Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
610          615          620

```

&lt;210&gt; 3367

&lt;211&gt; 366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3367

acgcgtgcag gagaggagag gccaggagat agggagggca gtttgtggat tgaaatgacc

60

gagaattacg ccacagaggt gttggaggct ggcatcgtgg catctcagga gcacggaggg

120

tgccttcccc acttcaggcc tcttagtgtc aaggatgtga gaggcaaggg ctgctgggag

180

agtatttttac ggactgaagg aggcgtgccg cctgccctgc cctcctactg gtggaggaag

240

gaggtgctgg gagccccaca actcagggcc ccccgacgcc cagtaaggcc actgtacacc

300

cctcctgacc cagaccataa ccagcctccg attgtgcttt tgaccctggt tccttcaggc

360

accagg

366

&lt;210&gt; 3368

&lt;211&gt; 104

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 3368

```

Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
 1             5             10             15
Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
          20             25             30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
          35             40             45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
          50             55             60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
65             70             75             80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
          85             90             95
Thr Leu Phe Pro Ser Gly Thr Arg
          100

```

&lt;210&gt; 3369

&lt;211&gt; 1405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3369

```

ctgtgtccag ggaaaagctt tcagcagcaa agggaagcca tgaaacaaac catagaagaa
60
gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaagaggaaa
120
aagggtttat ataatgccaa taaaaatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
240
ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
300
tttgcattctg cagttctca tacaacccgg agtaggcgag accaagaagt agccggtaga
360
gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagttcatt
420
gagcatgggtg aatttgagaa gaatttgtat ggaactagca tagattctgt acggcaagtg
480
atcaactctg gcaaaatatg tcttttaagt cttcgtacac agtcattgaa gactctccgg
540
aattcagatt tgaaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
600
gcattattgg ccaaagaagg caagaatcca aagcctgaag agttgagaga aatcattgag
660
aagacaagag agatggagca gaacaatggc cactactttg atacggcaat tgtgaattcc
720
gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
780
cagtgggtac catccacttg gctgaggtga aagaaacatc cattctgtgg catgttggac
840
ttgatctggc aaaaactgcc aataggagga ctgcccagca ctgcagcaag attgaggata
900

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agatggaagg cagcagtata agctgtagat ctgttcttag atctcttgaa ttagtgagac  
 960  
 gacagttccc ttaggcagtt tgtgcatggc atcctttatt ctctatacat ggcttttagcg  
 1020  
 gttcttgccct cattttggga ttctaaatgg aagctttcaa cagagcattc cattttgtcc  
 1080  
 tgttaaaacc ttttgtttcc acctaaaccc tttctgctta gttgtatctc tgtgaaaaac  
 1140  
 ttgtatacac aagcgtccat gtctcacaca aatattgatg tgattattct taagtgttaa  
 1200  
 atcattaaca cttaaagac ttcatggga atattgagca gagggactgt gcttctatgc  
 1260  
 actgggcaag gcagtatttg cttaggaaac taatttagtc atcagagata ctttcctaaa  
 1320  
 aaggaaaaat aaaaaacaaa atgggtgccac tttgggttga agctactttg ttaggcttga  
 1380  
 attcatttat atgtcttttg attct  
 1405

<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

Leu	Val	Pro	Gly	Lys	Ser	Phe	Gln	Gln	Gln	Arg	Glu	Ala	Met	Lys	Gln
1				5				10						15	
Thr	Ile	Glu	Glu	Asp	Lys	Glu	Gln	Lys	Asn	Gln	Glu	Asn	Cys	Gly	Ala
		20					25					30			
Lys	Lys	Asn	Lys	Lys	Lys	Arg	Lys	Lys	Val	Leu	Tyr	Asn	Ala	Asn	Lys
		35				40					45				
Asn	Asp	Asp	Tyr	Asp	Asn	Glu	Glu	Ile	Leu	Thr	Tyr	Glu	Glu	Met	Ser
		50			55					60					
Leu	Tyr	His	Gln	Pro	Ala	Asn	Arg	Lys	Arg	Pro	Ile	Ile	Leu	Ile	Gly
65				70				75						80	
Pro	Gln	Asn	Cys	Gly	Gln	Asn	Glu	Leu	Arg	Gln	Arg	Leu	Met	Asn	Lys
		85						90						95	
Glu	Lys	Asp	Arg	Phe	Ala	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Ser	Arg
		100						105					110		
Arg	Asp	Gln	Glu	Val	Ala	Gly	Arg	Asp	Tyr	His	Phe	Val	Ser	Arg	Gln
		115				120					125				
Ala	Phe	Glu	Ala	Asp	Ile	Ala	Ala	Gly	Lys	Phe	Ile	Glu	His	Gly	Glu
		130				135					140				
Phe	Glu	Lys	Asn	Leu	Tyr	Gly	Thr	Ser	Ile	Asp	Ser	Val	Arg	Gln	Val
145			150					155						160	
Ile	Asn	Ser	Gly	Lys	Ile	Cys	Leu	Leu	Ser	Leu	Arg	Thr	Gln	Ser	Leu
		165						170					175		
Lys	Thr	Leu	Arg	Asn	Ser	Asp	Leu	Lys	Pro	Tyr	Ile	Ile	Phe	Ile	Ala
		180					185						190		
Pro	Pro	Ser	Gln	Glu	Arg	Leu	Arg	Ala	Leu	Leu	Ala	Lys	Glu	Gly	Lys
		195				200						205			
Asn	Pro	Lys	Pro	Glu	Glu	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Thr	Arg	Glu
	210					215					220				
Met	Glu	Gln	Asn	Asn	Gly	His	Tyr	Phe	Asp	Thr	Ala	Ile	Val	Asn	Ser

225						230						235						240
Asp	Leu	Asp	Lys	Ala	Tyr	Gln	Glu	Leu	Leu	Arg	Leu	Ile	Asn	Lys	Leu			
					245						250						255	
Asp	Thr	Glu	Pro	Gln	Trp	Val	Pro	Ser	Thr	Trp	Leu	Arg						
					260						265							

```
<210> 3371
<211> 790
<212> DNA
<213> Homo sapiens
```

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<400> 3371
nnacgcgtag ccacaagacc ggggtccggtt ctgggttgccg tccccgcagg tgacgctgca
60
gacagaccag agactccagt caccctcgcc atctgtggaa tcatattctg gctgatcttt
120
ggtttcaaaa gtccgggtggc ctgggggctgt atgggtccac cccctggggg ggttgaggaa
180
gttgctgtcg tctgaggtac tgccgtacgt gtagtcctgg tccccgcttt tgccctggcc
240
aaagaagcac caagggagca tctggaccac caggctgcac accaaccctt cccagaccg
300
cgattccgac aagagacggg gcacccttca ttgcaaagag atttccccag atcctttctc
360
cttgatctac caaactttcc agatctttcc aaagctgata tcaatgggca gaatccaaat
420
atccaggtca ccatagaggt ggtcgacggg cctgactctg aagcagataa agatcagcat
480
ccggagaata agcccagctg gtcagtccca tccccgact ggcgggcctg gtggcagagg
540
tccctgtcct tggccagggc aaacagcggg gaccaggact acaagtacga cagtacctca
600
gacgacagca acttctctca cccccccagg ggggtgggacc atacagcccc agggccaccgg
660
acttttgaaa ccaaagatca gccagaatat gattccacag atggcgaggg tgactggagt
720
ctctggtctg tctgcagcgt cacctgcggg aacggcaacc agaaacggac ccggtcttgt
780
ggctacgcgt
790

```

```
<210> 3372
<211> 198
<212> PRT
<213> Homo sapiens
```

<400> 3372  
Gly Thr Ala Val Arg Val Val Leu Val Pro Ala Phe Ala Leu Ala Lys  
1 5 10 15  
Glu Ala Pro Arg Glu His Leu Asp His Gln Ala Ala His Gln Pro Phe  
20 25 30  
Pro Arg Pro Arg Phe Arg Gln Glu Thr Gly His Pro Ser Leu Gln Arg  
35 40 45  
Asp Phe Pro Arg Ser Phe Leu Leu Asp Leu Pro Asn Phe Pro Asp Leu

```

      50              55              60
Ser Lys Ala Asp Ile Asn Gly Gln Asn Pro Asn Ile Gln Val Thr Ile
65              70              75              80
Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro
      85              90              95
Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp
      100             105             110
Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp
      115             120             125
Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro
      130             135             140
Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys
145             150             155             160
Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu
      165             170             175
Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr
      180             185             190
Arg Ser Cys Gly Tyr Ala
      195

```

&lt;210&gt; 3373

&lt;211&gt; 726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3373

```

tgtacatggt ttctctgggc tgacaggggc cctgcccctg gggcactgag ccctccctgt
60
gggtccctcga acagaagcca gggctctgtgc ggcacccacc agctgctggg ccatggcgga
120
gtgttcttgtt gcgggccagc gcttgaccgg tgcgggcggc ctcaggagag gagagcttgc
180
tcagtgcgtc acgtagtcag ggctcaggct ggggcccggc tccagagcct ggtcacattc
240
ccaagcttca ttctcttcac ctgtgaattg caggcttccc tgggtgtgccc tgcacatgag
300
ggaagacaca cctgaagcac tgggtccctc catggccttg ggccgcagga accgtgggag
360
cacgagcttg ggaaggacat gtcggaggcc ggcgcctgtg cgggcagaag ctgtgtcctc
420
cagcccttcc accaccagca tggttctcatt tccaggtttc tctgtttaaa aaacaaaagt
480
agcgcatcgg tggctcttcac gacgtacacc cagaagcacc cgtccatcga ggacgggcct
540
ccgttttgtg agccgctgct taacttcacg tggttcctgc tgctggctgt ggacgggtgc
600
gtcttgggat cctgcagggg gagggggctg tgaatgtgcg ggttgtgtgt agacgtggtg
660
tggatagctg tgtgggtgtg tgtgcaagt tagccatggt gtgggtagcc gtgtgggtat
720
atgcat
726

```

&lt;210&gt; 3374

<211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 3374  
 Met Ser Glu Ala Gly Ala Cys Ala Gly Arg Ser Cys Val Leu Gln Pro  
 1 5 10 15  
 Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn  
 20 25 30  
 Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro  
 35 40 45  
 Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile  
 50 55 60  
 Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg  
 65 70 75 80  
 Gly Arg Gly Leu

<210> 3375  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 3375  
 acgcgtgcat acgtgatctc atgtttgcac acatgtgtcc atgcagatgc atgctctcac  
 60  
 gcacatgtgc ccacacactc agcactcaca ccccgctcctg caggctcagc cccactcctg  
 120  
 agccacctgc ctgggctttg ggggcccagc cggcatgggg agccccaggc tccagctggc  
 180  
 ctcgcttgge tctgaaatct aggccaggat gcagagcccg cagtgcggcc agtggagccc  
 240  
 ctggtactgt gcgcagcccc cacctggcag ccccttttcc tgtcaaagcc cctcccagcg  
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 360  
 cttgccagc atccccggcc tgcattcac cag  
 393

<210> 3376  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 3376  
 Met Phe Ala His Met Cys Pro Cys Arg Cys Met Leu Ser Arg Thr Cys  
 1 5 10 15  
 Ala His Thr Leu Ser Thr His Thr Pro Ser Cys Arg Leu Ser Pro Thr  
 20 25 30  
 Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala  
 35 40 45  
 Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys  
 50 55 60  
 Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

```

65              70              75              80
His Leu Ala Ala Pro Phe Pro Val Lys Ala Pro Pro Ser Val Leu Ser
              85              90              95
Pro Pro Gly Lys Leu Pro Ala
              100

```

&lt;210&gt; 3377

&lt;211&gt; 5235

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3377

```

ngtcgacatc ttggtctccg gtcttgggcc tgtttaagaa tcctggcatc acgtgtggcg
60
aggacatggc tgatcagttt tctgacagaa gtgggtaaat ttccgcgttg gtaaatttcc
120
tgacaggaaa ttccggggaa ctaaaaaggc tggaagaaca tgaagatgga gcagtcataa
180
accacccact caaggaccat ctcttcacg accatccaca cgagactcag attgtctgaa
240
ttgagctatc gcaacttaat gctaaaagct ccttaaagct acagatttat gacatagttc
300
cttccaaaat attacatcat aaatcattga gaagattaaa aaaaaacact tgaagaaatt
360
gtagttttaa acatctctgc atatattttg gatagctact aggttacttt aactgtcatt
420
aaggagcaca gacttactga agctttactg gacagaatcc tgggaaatcg atatcattat
480
aaggttatat ttcccagtta gcgggtgaag ggctggagac cttattgcag tcatggcttt
540
cacaaattac agcagtctga atcgagctca gctaaccttt gaatatctgc acacaaattc
600
gtaagtatcc tctaggtgcc actgaggtaa ccagtaactc gttccttgat attatatgga
660
aatcgtttcc ccagaaaatt ttgcttttcc actttttgag atgtatccca ctggagtga
720
atgtgtcact ggatatcttg agctctgtat tgaagaactg agatcagtga aatacttggt
780
gctaataccag aagaatctga tttttgttta ttggatcaaa attttctaaa tgcaaaactt
840
agttatttga agtcaatatg ttgagttggt tcattcaagt gtttatagga atccaacaaa
900
tactgctcta ttggatcgcc aaatggtgga ctattttagt atcaaccgtt tcccctctgt
960
agtgacaacg tcctaaacag ttaggtttat aacaagtgtt tactttctaa caagaaaaca
1020
gaagacattt aaatgacaac tttcaagaag aaaattttta ttttttcaga agttggcatt
1080
atcttctctg cagattgctc acatccaata ttatttgtat atgctaaaca ggaaacggca
1140
acttgtttat atctctattt agatagtctt tccccaaaat ttccacagaa acatacagtg
1200
ttcatgggtc ttgagttcat gaaggagtaa tctaactcact ccaacatggt ctggaatggt
1260

```

tcagggtttaa tccatatgcc cactctcttg gaggctgtcc agtagcgtca aaacttttagt  
1320  
gttttaatac attcacctgt tacttttgag atgaagttca cctttcttgg atcacatgca  
1380  
aaggatgttt aggtctgtga agaaaagaat ttctaggccg ggtgctgtgg ctcacgcctg  
1440  
taatcccagc actttgggag gccgagaacc actcacgaat tcttgtttgg tgctcttgct  
1500  
gaactgggtg ataatgcaag agatgctgat gccaccagaa tagatattta tgcagaaaga  
1560  
cgagaggacc ttcgaggagg atttatgctt tgctttttgg atgatggagc aggaatggat  
1620  
ccaagtgatg ctgccagtgt gatccagttt gggaagtcgg ccaagcgaac acctgagtct  
1680  
actcagattg ggcagtacgg gaatgggtta aaatcgggct caatgcgcat tgggaaggat  
1740  
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1800  
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1860  
cggaacctg tcacagacaa tgtagagaaa ttggcattg agacagaact catctataag  
1920  
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1980  
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2040  
gacataatct caaatccaag agatatccag atggcagaga cgtccccaga gggcacgaag  
2100  
ccagagcggc gctcgttccg tgcctatgcc gctgtgctct atattgatcc ccgatgagg  
2160  
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2220  
aggatgtaca agtacacgtc aagccgtttc aagaccctg cgagcagga ggtgaggata  
2280  
gcagtgcacg tagcaaggat tgctgaagag aaggcgcggg aggcagagag caaagctcgg  
2340  
acattagaag tacgcctagg tggagacctc acgcgggact ccagggtgat gttgcgacag  
2400  
gtccagaaca gagccatcac tctgcgcaga gaagccgatg tcaagaagag gatcaaggag  
2460  
gccaagcagc gagcacttaa agaacctaa gaactgaatt ttgttttgg tgtaacatt  
2520  
gaacaccggg atctggatgg catgttcac tacaactgta gccgactgat caaatgtat  
2580  
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2760  
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2820  
tggaaccagc ccccgctccag tgagctgctg tacaacgcc ggagagctat ggaaatccc  
2880

accaccatcc agtgcgattt gtgtctgaaa tggagaaccc tccccttcca gctgagttct  
2940  
gtggaaaaag attaccctga cacctgggtt tgctccatga accctgatcc tgaacaggac  
3000  
cggtgtgagg cttctgaaca aaagcagaag gttccccctgg gaacattcag aaaggacatg  
3060  
aagacgcagg aagagaagca gaaacaactg acagagaaaa ttcgccagca gcaggagaag  
3120  
ctggaggccc ttcagaaaac cacacccatc cgctcccaag cagacctgaa gaaattgccc  
3180  
ttggaagtga ccaccagacc ttccactgag gaacctgtgc gtagacctca gcgtcctcgg  
3240  
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3300  
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cgaaagcctg ccaacactct cgtcaagact gcatcccgac ctgccccctt ggtgcagcaa  
3480  
ctgtcaccat ctttactgcc caactccaag agccctcggg aggttccttc tcccaaagtc  
3540  
atcaagactc cagtgggtgaa gaagacagag tcacccatca aactctcccc ggctacccct  
3600  
agtcggaagc ggagtgtcgc agtttctgat gaggaagaag ttgaggagga agctgagagg  
3660  
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3720  
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3780  
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3840  
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3900  
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3960  
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4020  
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4080  
gagcctgaca ccactgccct gagcaccaat cagcagacca tcgacctgct tgtccagatc  
4140  
ctccggaatt gtttacggtg cttcctgcct ccaagtctcc ccatctcaa gaagcagctg  
4200  
agtgtatga attcagatga gctaatatct tttcctctga aggagtactt caagcaatat  
4260  
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4320  
gcctccgagg aaagcctgcg cacctccgag aggaagctcc gcgagacgga ggagaagctg  
4380  
cagaagctga ggaccaacat cgtggcactc ctgcaaaagg tgcaggagga catagacatc  
4440  
aacacagatg atgagctgga cgcctacatt gaggacctca tcaccaaggg ggactgaagg  
4500



caggagagag agcagctccc ctgccacct gccctcaac cctgtagctg cagggggagg  
 4560  
 ggacttcatt catgggttgg tggctgcacc ttggttgac ttacacggga catttggtt  
 4620  
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 4680  
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 4740  
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 4800  
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 4980  
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 5040  
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 5100  
 ctcatctact actcaagttc tttctgaagg agggatttct tcagttaacc atggacagtg  
 5160  
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 5235

&lt;210&gt; 3378

&lt;211&gt; 970

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3378

Met	Leu	Cys	Phe	Leu	Asp	Asp	Gly	Ala	Gly	Met	Asp	Pro	Ser	Asp	Ala
1				5					10					15	
Ala	Ser	Val	Ile	Gln	Phe	Gly	Lys	Ser	Ala	Lys	Arg	Thr	Pro	Glu	Ser
			20					25					30		
Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
			35				40					45			
Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
	50					55					60				
Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
65					70				75					80	
Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
				85					90					95	
Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
			100					105					110		
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
			115				120					125			
Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
	130					135					140				
Met	Asp	Asn	Gly	Glu	Pro	Glu	Leu	Asp	Ile	Ile	Ser	Asn	Pro	Arg	Asp
145					150					155				160	
Ile	Gln	Met	Ala	Glu	Thr	Ser	Pro	Glu	Gly	Thr	Lys	Pro	Glu	Arg	Arg

```

165      170      175
Ser Phe Arg Ala Tyr Ala Ala Val Leu Tyr Ile Asp Pro Arg Met Arg
180      185      190
Ile Phe Ile His Gly His Lys Val Gln Thr Lys Arg Leu Ser Cys Cys
195      200      205
Leu Tyr Lys Pro Arg Met Tyr Lys Tyr Thr Ser Ser Arg Phe Lys Thr
210      215      220
Arg Ala Glu Gln Glu Val Arg Ile Ala Val His Val Ala Arg Ile Ala
225      230      235      240
Glu Glu Lys Ala Arg Glu Ala Glu Ser Lys Ala Arg Thr Leu Glu Val
245      250      255
Arg Leu Gly Gly Asp Leu Thr Arg Asp Ser Arg Val Met Leu Arg Gln
260      265      270
Val Gln Asn Arg Ala Ile Thr Leu Arg Arg Glu Ala Asp Val Lys Lys
275      280      285
Arg Ile Lys Glu Ala Lys Gln Arg Ala Leu Lys Glu Pro Lys Glu Leu
290      295      300
Asn Phe Val Phe Gly Val Asn Ile Glu His Arg Asp Leu Asp Gly Met
305      310      315      320
Phe Ile Tyr Asn Cys Ser Arg Leu Ile Lys Met Tyr Glu Lys Val Gly
325      330      335
Pro Gln Leu Glu Gly Gly Met Ala Cys Gly Gly Val Val Gly Val Val
340      345      350
Asp Val Pro Tyr Leu Val Leu Glu Pro Thr His Asn Lys Gln Asp Phe
355      360      365
Ala Asp Ala Lys Glu Tyr Arg His Leu Leu Arg Ala Met Gly Glu His
370      375      380
Leu Ala Gln Tyr Trp Lys Asp Ile Ala Ile Ala Gln Arg Gly Ile Ile
385      390      395      400
Lys Phe Trp Asp Glu Phe Gly Tyr Leu Ser Ala Asn Trp Asn Gln Pro
405      410      415
Pro Ser Ser Glu Leu Arg Tyr Lys Arg Arg Arg Ala Met Glu Ile Pro
420      425      430
Thr Thr Ile Gln Cys Asp Leu Cys Leu Lys Trp Arg Thr Leu Pro Phe
435      440      445
Gln Leu Ser Ser Val Glu Lys Asp Tyr Pro Asp Thr Trp Val Cys Ser
450      455      460
Met Asn Pro Asp Pro Glu Gln Asp Arg Cys Glu Ala Ser Glu Gln Lys
465      470      475      480
Gln Lys Val Pro Leu Gly Thr Phe Arg Lys Asp Met Lys Thr Gln Glu
485      490      495
Glu Lys Gln Lys Gln Leu Thr Glu Lys Ile Arg Gln Gln Gln Glu Lys
500      505      510
Leu Glu Ala Leu Gln Lys Thr Thr Pro Ile Arg Ser Gln Ala Asp Leu
515      520      525
Lys Lys Leu Pro Leu Glu Val Thr Thr Arg Pro Ser Thr Glu Glu Pro
530      535      540
Val Arg Arg Pro Gln Arg Pro Arg Ser Pro Pro Leu Pro Ala Val Ile
545      550      555      560
Arg Asn Ala Pro Ser Arg Pro Pro Ser Leu Pro Thr Pro Arg Pro Ala
565      570      575
Ser Gln Pro Arg Lys Ala Pro Val Ile Ser Ser Thr Pro Lys Leu Pro
580      585      590
Ala Leu Ala Ala Arg Glu Glu Ala Ser Thr Ser Arg Leu Leu Gln Pro

```

595	600	605
Pro Glu Ala Pro Arg Lys	Pro Ala Asn Thr Leu Val	Lys Thr Ala Ser
610	615	620
Arg Pro Ala Pro Leu Val Gln	Gln Leu Ser Pro Ser Leu Leu Pro Asn	
625	630	635
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro		640
	645	650
Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro		655
	660	665
Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Glu Val Glu Glu		670
	675	680
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val		685
	690	695
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly		700
705	710	715
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His		720
	725	730
Val Glu Val Arg Val Asn Arg Glu Trp Tyr Thr Gly Arg Val Thr Ala		735
	740	745
Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr		750
	755	760
Val Pro Thr Asp Thr Thr Pro Arg Asp Arg Trp Val Glu Lys Gly Ser		765
	770	775
Glu Asp Val Arg Leu Met Lys Pro Pro Ser Pro Glu His Gln Ser Leu		780
785	790	795
Asp Thr Gln Gln Glu Gly Gly Glu Glu Glu Val Gly Pro Val Ala Gln		800
	805	810
Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile		815
	820	825
Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu		830
	835	840
Leu Val Gln Ile Leu Arg Asn Cys Leu Arg Tyr Phe Leu Pro Pro Ser		845
	850	855
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu		860
865	870	875
Ile Ser Phe Pro Leu Lys Glu Tyr Phe Lys Gln Tyr Glu Val Gly Leu		880
	885	890
Gln Asn Leu Cys Asn Ser Tyr Gln Ser Arg Ala Asp Ser Arg Ala Lys		895
	900	905
Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr		910
	915	920
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln		925
	930	935
Lys Val Gln Glu Asp Ile Asp Ile Asn Thr Asp Asp Glu Leu Asp Ala		940
945	950	955
Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp		960
	965	970

&lt;210&gt; 3379

&lt;211&gt; 898

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3379

nagatctggg ctgaaacacg gttggtgctg atggccacag acagagggag cccagccctg  
 60  
 gtgggctcag ctaccttgac ggtgatggtc atcgacacca atggcaatcg cccaccatc  
 120  
 cccaaccct gggagctccg agtgtcagaa gatgcgttat tgggctcaga gattgcacag  
 180  
 gtaacagggg atgatgtgga ctcaggaccc gtgctgtggg atgtgctaag cccatctggg  
 240  
 ccccaggatc ccttcagtgt tggccgctat ggaggccgtg tctccctcac ggggcccctg  
 300  
 gactttgagc agtgtgaccg ctaccagctg cagctgctgg cacatgatgg gcctcatgag  
 360  
 ggccgtgcan acctcacagt gcttgtggag gatgtcaatg acaatgcacc tgccttctca  
 420  
 cagagcctct accaggtaat gctgcttgag cacacacccc caggcagtgc cattctctcc  
 480  
 gtctctgcca ctgatcggga ctcagggtgc aacggtcaca tttcctacca cctggcttcc  
 540  
 cctgccgatg gcttcagtgt tgaccccaac aatgggaccc tgttcacaat agtgggaaca  
 600  
 ttggccttgg gccatgacgg gtcaggagca gtggatgtgg tgctggaagc acgagaccac  
 660  
 ggggctccag tccgggcagc acgagccaca gtgaacgtgc agctgcggga ccagaacgac  
 720  
 cacgccccga gcttcacatt gttccactac cgtgtggctg tgactgaaga cctgccccct  
 780  
 ggctccactc tgctaaccct ggaggctaca gatgctgatg gaagccgcag ccatgccgct  
 840  
 gtggattaca gcatcatcag tggcaactgg ggccgagtct tccagctgga acccaggg  
 898

&lt;210&gt; 3380

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3380

Xaa	Ile	Trp	Ala	Glu	Thr	Arg	Leu	Val	Leu	Met	Ala	Thr	Asp	Arg	Gly
1				5					10					15	
Ser	Pro	Ala	Leu	Val	Gly	Ser	Ala	Thr	Leu	Thr	Val	Met	Val	Ile	Asp
			20					25					30		
Thr	Asn	Gly	Asn	Arg	Pro	Thr	Ile	Pro	Gln	Pro	Trp	Glu	Leu	Arg	Val
		35					40					45			
Ser	Glu	Asp	Ala	Leu	Leu	Gly	Ser	Glu	Ile	Ala	Gln	Val	Thr	Gly	Asn
		50				55					60				
Asp	Val	Asp	Ser	Gly	Pro	Val	Leu	Trp	Tyr	Val	Leu	Ser	Pro	Ser	Gly
65				70					75					80	
Pro	Gln	Asp	Pro	Phe	Ser	Val	Gly	Arg	Tyr	Gly	Gly	Arg	Val	Ser	Leu
			85					90					95		
Thr	Gly	Pro	Leu	Asp	Phe	Glu	Gln	Cys	Asp	Arg	Tyr	Gln	Leu	Gln	Leu
			100					105					110		
Leu	Ala	His	Asp	Gly	Pro	His	Glu	Gly	Arg	Ala	Xaa	Leu	Thr	Val	Leu
		115					120					125			
Val	Glu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Ala	Phe	Ser	Gln	Ser	Leu	Tyr

130                      135                      140  
 Gln Val Met Leu Leu Glu His Thr Pro Pro Gly Ser Ala Ile Leu Ser  
 145                      150                      155                      160  
 Val Ser Ala Thr Asp Arg Asp Ser Gly Ala Asn Gly His Ile Ser Tyr  
                     165                      170                      175  
 His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly  
                     180                      185                      190  
 Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser  
                     195                      200                      205  
 Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val  
                     210                      215                      220  
 Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp  
 225                      230                      235                      240  
 His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu  
                     245                      250                      255  
 Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala  
                     260                      265                      270  
 Asp Gly Ser Arg Ser His Ala Ala Val Asp Tyr Ser Ile Ile Ser Gly  
                     275                      280                      285  
 Asn Trp Gly Arg Val Phe Gln Leu Glu Pro Arg  
                     290                      295

&lt;210&gt; 3381

&lt;211&gt; 1379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3381

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 60  
 gagccgctgg aaggacaga acagacacta gatgaggagg aggagcagga ggaatccgaa  
 120  
 gaagcggcct gtggcagcaa gaaacgggta gtgccaggta ttgtgtacct gggccatatt  
 180  
 ccgcccgcct tccggcccct gcacgtccgc aacctttctca gcgcctatgg cgaggtcggg  
 240  
 cgcgtcttct ttcaggctga ggaccgggtc gtgagacgca agaagaaggc agcagcagct  
 300  
 gccggaggga aaaagcggtc ctacaccaag gactacaccg agggatgggt ggagttccgt  
 360  
 gacaagcgca tagccaagcg cgtggcggcc agtctacaca acacgcctat ggggtgccgc  
 420  
 aggcgcagcc ccttcggtta tgatctttgg aacctcaagt acttgaccg tttcacctgg  
 480  
 tcccacctca gcgagcacct cgcctttgag cgccagggtc gcaggcagcg cttgagagcg  
 540  
 gaggttgctc aagccaagcg tgagaccgac ttctatcttc aaagtgtgga acggggacaa  
 600  
 cgctttcttg cggccgatgg ggaccctgct cgcccagatg gtcctggac atttgcccag  
 660  
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 720  
 gctgcctgg caactgccca ggacaaggcc cgctccaaca aagggtcctt ggccaggatc  
 780

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 840  
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 900  
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 1080  
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 1260  
 agttaatggg gtggactggg ttgggaagaa atacatttcc taatgtattt atagaaaata  
 1320  
 aaaatatttt tatgtgaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1379

<210> 3382

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

Xaa	Pro	Leu	Val	Ser	Val	Asn	Met	Glu	Ala	Glu	Glu	Ser	Glu	Lys	Ala
1			5						10					15	
Ala	Thr	Glu	Gln	Glu	Pro	Leu	Glu	Gly	Thr	Glu	Gln	Thr	Leu	Asp	Ala
		20						25					30		
Glu	Glu	Glu	Gln	Glu	Glu	Ser	Glu	Glu	Ala	Ala	Cys	Gly	Ser	Lys	Lys
		35					40					45			
Arg	Val	Val	Pro	Gly	Ile	Val	Tyr	Leu	Gly	His	Ile	Pro	Pro	Arg	Phe
	50				55						60				
Arg	Pro	Leu	His	Val	Arg	Asn	Leu	Leu	Ser	Ala	Tyr	Gly	Glu	Val	Gly
65				70					75					80	
Arg	Val	Phe	Phe	Gln	Ala	Glu	Asp	Arg	Phe	Val	Arg	Arg	Lys	Lys	Lys
			85						90					95	
Ala	Ala	Ala	Ala	Ala	Gly	Gly	Lys	Lys	Arg	Ser	Tyr	Thr	Lys	Asp	Tyr
		100					105						110		
Thr	Glu	Gly	Trp	Val	Glu	Phe	Arg	Asp	Lys	Arg	Ile	Ala	Lys	Arg	Val
	115					120					125				
Ala	Ala	Ser	Leu	His	Asn	Thr	Pro	Met	Gly	Ala	Arg	Arg	Arg	Ser	Pro
	130				135						140				
Phe	Arg	Tyr	Asp	Leu	Trp	Asn	Leu	Lys	Tyr	Leu	His	Arg	Phe	Thr	Trp
145				150					155					160	
Ser	His	Leu	Ser	Glu	His	Leu	Ala	Phe	Glu	Arg	Gln	Val	Arg	Arg	Gln
			165					170					175		
Arg	Leu	Arg	Ala	Glu	Val	Ala	Gln	Ala	Lys	Arg	Glu	Thr	Asp	Phe	Tyr
	180					185						190			
Leu	Gln	Ser	Val	Glu	Arg	Gly	Gln	Arg	Phe	Leu	Ala	Ala	Asp	Gly	Asp
	195					200					205				
Pro	Ala	Arg	Pro	Asp	Gly	Ser	Trp	Thr	Phe	Ala	Gln	Arg	Pro	Thr	Glu

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      210              215              220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg
225              230              235              240
Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu
      245              250              255
Leu Ala Arg Ile Phe Gly Ala Pro Pro Pro Ser Glu Ser Met Glu Gly
      260              265              270
Pro Ser Leu Val Arg Asp Ser
      275

```

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<210> 3383
<211> 309
<212> DNA
<213> Homo sapiens

```

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<400> 3383
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gtgttgcttg cacacaaatt ttgtagctgg agtgagtatt gttgttattt gtgttatagg
120
aaatgctcac ttcttaacct cttttgtcct ggagcataga attactgcaa atgctcaccc
180
ctgggagctg tcctgcccc gatctccac acaaacactc cagcatgaaa gagcgagact
240
caatctcaaa aaaaaaagt ttcgggcacc tgaacaggaa ctggtttcca tcatcaactc
300
agaaagccc
309

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<210> 3384
<211> 94
<212> PRT
<213> Homo sapiens

```

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<400> 3384
Met Leu Ala His His Gly Ser Arg Glu Lys Cys Gln Cys Cys Leu His
1              5              10              15
Thr Asn Phe Val Ala Gly Val Ser Ile Val Val Ile Cys Val Ile Gly
      20              25              30
Asn Ala His Phe Leu Thr Ser Phe Val Leu Glu His Arg Ile Thr Ala
      35              40              45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr
      50              55              60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Lys Phe Arg
65              70              75              80
Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser
      85              90

```

```

<210> 3385
<211> 720
<212> DNA
<213> Homo sapiens

```

```

<400> 3385

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nncctaggag atgaagccgc cagcctgagc aagcctggca gatagacatg gccagacttg  
 60  
 gtaggggtga gccggcttgg ccagagggag gaggggtctat gctgaggtct actgatggta  
 120  
 gtgaaaacag tgacggtgcg ggggtgggga gcaactgcgt ccacttcttc agccccccac  
 180  
 tatcctggaa gcttcagggt gggcccagg cagcctccag ctccagcgac caccctgtt  
 240  
 cctcttgcca gggtctttgt gaacttcccc tcggccaagc agtacttcag ccagttcaag  
 300  
 cacatggagg atcccctgga gatggagcgg agccccagc tcggaagca cgcctgccga  
 360  
 gtcattgggg cctcaacac tgcgtggag aacctgcatg accccgacaa ggtgtcctct  
 420  
 gtgctcgccc ttgtggggaa agcccacgcc ctcaagcaca aggtggaacc ggtgtacttc  
 480  
 aagatcctct ctggggtcat tctggaggtg gtcgccgagg aatttgccag tgacttccca  
 540  
 cctgagacgc agagagcctg ggccaagctg cgtggcctca tctacagcca cgtgaccgct  
 600  
 gcctacaagg aagtgggctg ggtgcagcag gtccccaacg ccaccacccc accggccaca  
 660  
 ctgccctctt cggggccgta ggaccctcc ctccaccccc ctccctggca gcacctcgag  
 720

&lt;210&gt; 3386

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3386

Met	Val	Val	Lys	Thr	Val	Thr	Val	Arg	Gly	Trp	Gly	Ala	Leu	Arg	Ser
1				5					10					15	
Thr	Ser	Ser	Ala	Pro	His	Tyr	Pro	Gly	Ser	Phe	Arg	Val	Gly	Pro	Arg
			20					25					30		
Gln	Pro	Pro	Ala	Ser	Ala	Thr	Thr	Pro	Val	Pro	Leu	Ala	Arg	Phe	Phe
			35				40					45			
Val	Asn	Phe	Pro	Ser	Ala	Lys	Gln	Tyr	Phe	Ser	Gln	Phe	Lys	His	Met
	50					55					60				
Glu	Asp	Pro	Leu	Glu	Met	Glu	Arg	Ser	Pro	Gln	Leu	Arg	Lys	His	Ala
65					70					75				80	
Cys	Arg	Val	Met	Gly	Ala	Leu	Asn	Thr	Val	Val	Glu	Asn	Leu	His	Asp
				85					90					95	
Pro	Asp	Lys	Val	Ser	Ser	Val	Leu	Ala	Leu	Val	Gly	Lys	Ala	His	Ala
			100					105					110		
Leu	Lys	His	Lys	Val	Glu	Pro	Val	Tyr	Phe	Lys	Ile	Leu	Ser	Gly	Val
		115					120					125			
Ile	Leu	Glu	Val	Val	Ala	Glu	Glu	Phe	Ala	Ser	Asp	Phe	Pro	Pro	Glu
	130					135					140				
Thr	Gln	Arg	Ala	Trp	Ala	Lys	Leu	Arg	Gly	Leu	Ile	Tyr	Ser	His	Val
145					150					155				160	
Thr	Ala	Ala	Tyr	Lys	Glu	Val	Gly	Trp	Val	Gln	Gln	Val	Pro	Asn	Ala
				165				170						175	
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180

185

&lt;210&gt; 3387

&lt;211&gt; 3299

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3387

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<210> 3388

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3388

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		20					25						30		
Leu	Arg	Val	Val	Leu	Ala	Leu	Arg	Gly	Arg	Glu	Glu	Val	Ser	Asp	Ala
	35					40						45			
Gly	Cys	Gly	Gly	Pro	Arg	Ile	Thr	Ile	Asn	Lys	Asp	Thr	Lys	Val	Pro
50					55						60				
Asn	Ala	Cys	Leu	Phe	Thr	Ile	Asn	Lys	Glu	Asp	His	Thr	Leu	Gly	Asn
65				70					75					80	
Ile	Ile	Lys	Ser	Gln	Leu	Leu	Lys	Asp	Pro	Gln	Val	Leu	Phe	Ala	Gly
			85					90						95	
Tyr	Lys	Val	Pro	His	Pro	Leu	Glu	His	Lys	Ile	Ile	Ile	Arg	Val	Gln
		100						105					110		
Thr	Thr	Pro	Asp	Tyr	Ser	Pro	Gln	Glu	Ala	Phe	Thr	Asn	Ala	Ile	Thr
	115					120						125			
Asp	Leu	Ile	Ser	Glu	Leu	Ser	Leu	Leu	Glu	Glu	Arg	Phe	Arg	Val	Ala
	130				135						140				
Ile	Lys	Asp	Lys	Gln	Glu	Gly	Ile	Glu							
145					150										

<210> 3389

<211> 308

<212> DNA

<213> Homo sapiens

<400> 3389

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308

<210> 3390  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 3390  
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Thr Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro  
35 40 45  
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro  
50 55 60  
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu  
65 70 75 80  
Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His  
85 90 95  
Val Glu Thr Pro Arg Ser  
100

<210> 3391  
<211> 1295  
<212> DNA  
<213> Homo sapiens

<400> 3391  
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120  
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<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

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			20					25					30		
Phe	Gly	Val	Ile	Ala	Asp	Val	Gln	Phe	Ala	Asp	Leu	Glu	Asp	Gly	Phe
	35					40					45				
Asn	Phe	Gln	Gly	Thr	Arg	Arg	Arg	Tyr	Tyr	Arg	His	Ser	Leu	Leu	His
	50				55						60				
Leu	Gln	Gly	Ala	Ile	Glu	Asp	Trp	Asn	Asn	Glu	Ser	Ser	Met	Pro	Cys
65					70					75				80	
Cys	Val	Leu	Gln	Leu	Gly	Asp	Ile	Ile	Asp	Gly	Tyr	Asn	Ala	Gln	Tyr
			85						90					95	
Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
			100					105					110		
Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
	115						120					125			
Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
	130					135					140				
Glu	Asp	Gln	Ile	Val	His	His	Pro	Glu	Thr	Met	Pro	Ser	Glu	Asp	Tyr
145					150					155				160	
Tyr	Ala	Tyr	His	Phe	Val	Pro	Phe	Pro	Lys	Phe	Arg	Phe	Ile	Leu	Leu
			165					170						175	
Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
			180					185					190		
Tyr	Glu	Gln	Cys	Met	Lys	Ile	Leu	Arg	Glu	His	Asn	Pro	Asn	Thr	Glu
	195						200					205			
Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

210		215		220	
Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr					
225		230		235	240
Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro					
	245		250		255
Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg					
	260		265		270
Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe					
	275		280		285
Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val					
	290		295		300
Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln					
305		310		315	320
Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly					
	325		330		335
Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala					
	340		345		350
Phe His Cys					
355					

&lt;210&gt; 3393

&lt;211&gt; 510

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3393

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510

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&lt;210&gt; 3394

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3394

Xaa Arg Leu Trp Asp Pro Leu Gly Arg Gly Ser Ser Gly Gly Asp Val		
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Cys Arg Leu Gly Met Gly Pro Gly Xaa Val Thr Pro Ser Ser Phe Val		

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807

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<210> 3396  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser  
 50 55 60  
 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser  
 65 70 75 80  
 Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys  
 85 90 95  
 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn  
 100 105 110  
 Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser  
 115 120 125  
 Ser Met Val Leu Gly Ser Phe Gly Thr Asp Leu Met Arg Glu Arg Arg  
 130 135 140  
 Asp Leu Glu Arg Arg Thr Asp Ser Ser Ile Ser Asn Leu Met Asp Tyr  
 145 150 155 160  
 Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg  
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<210> 3397  
 <211> 492  
 <212> DNA  
 <213> Homo sapiens

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 360  
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<210> 3398  
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 <212> PRT  
 <213> Homo sapiens

<400> 3398  
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 35 40 45  
 Ala Ser Ala Ile Pro Ser Trp Leu Leu Asn Asp Pro Gly Val Glu Xaa  
 50 55 60  
 Glu Val Met Gly Asp Ala Val Leu Glu Ala Ser His Asn Val Gln Gly  
 65 70 75 80  
 Cys Gly Cys Ser Trp Val Ser His Ser Gly Arg Gly Val Gly Pro Glu  
 85 90 95  
 Ala Glu Gly Ala Gly Ser Pro Gln Ser Leu Gly His Gly Ser Gly Gly  
 100 105 110  
 Trp Ala Ala Arg Arg Cys His Cys Leu Ser Val Ala Gly Val Ala Ala  
 115 120 125  
 Ala Ser Gly Cys Pro Arg Thr Glu Glu Ala Ala Trp Gly Glu Ile Leu  
 130 135 140  
 Arg Glu Gly Leu Ser Ser Pro Cys Ser Cys Ser Pro Gly Pro Pro Gly  
 145 150 155 160  
 Lys Leu Gly

<210> 3399  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 3400

&lt;211&gt; 1069

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3400

Thr	Gln	Ala	Met	Glu	Gly	Leu	Leu	His	Tyr	Ile	Asn	Pro	Ala	His	Ala
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Ile	Ser	Leu	Leu	Ser	Ala	Leu	Asn	Glu	Glu	Arg	Leu	Lys	Gly	Gln	Leu
		20					25						30		
Cys	Asp	Val	Leu	Leu	Ile	Val	Gly	Asp	Gln	Lys	Phe	Arg	Ala	His	Lys
	35					40					45				
Asn	Val	Leu	Ala	Ala	Ser	Ser	Glu	Tyr	Phe	Gln	Ser	Leu	Phe	Thr	Asn
	50					55					60				
Lys	Glu	Asn	Glu	Ser	Gln	Thr	Val	Phe	Gln	Leu	Asp	Phe	Cys	Glu	Pro
65					70				75					80	
Asp	Ala	Phe	Asp	Asn	Val	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Ser	Leu	Phe
				85					90					95	
Val	Glu	Lys	Ser	Ser	Leu	Ala	Ala	Val	Gln	Glu	Leu	Gly	Tyr	Ser	Leu
			100					105					110		
Gly	Ile	Ser	Phe	Leu	Thr	Asn	Ile	Val	Ser	Lys	Thr	Pro	Gln	Ala	Pro
		115				120						125			
Phe	Pro	Thr	Cys	Pro	Asn	Arg	Lys	Lys	Val	Phe	Val	Glu	Asp	Asp	Glu
	130					135					140				
Asn	Ser	Ser	Gln	Lys	Arg	Ser	Val	Ile	Val	Cys	Gln	Ser	Arg	Asn	Glu
145				150					155					160	
Ala	Gln	Gly	Lys	Thr	Val	Ser	Gln	Asn	Gln	Pro	Asp	Val	Ser	His	Thr
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Ser	Arg	Pro	Ser	Pro	Ser	Ile	Ala	Val	Lys	Ala	Asn	Thr	Asn	Lys	Pro
		180				185						190			
His	Val	Pro	Lys	Pro	Ile	Glu	Pro	Leu	His	Asn	Leu	Ser	Leu	Thr	Glu
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Lys	Ser	Trp	Pro	Lys	Asp	Ser	Ser	Val	Val	Tyr	Ala	Lys	Ser	Leu	Glu
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His	Ser	Gly	Ser	Leu	Asp	Asp	Pro	Asn	Arg	Ile	Ser	Leu	Val	Lys	Arg

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          245          250          255
Asp Lys Pro Gly Val Ser Gly Gln Leu Pro Lys Gly Lys Ala Leu Glu
          260          265          270
Leu Ala Leu Lys Arg Pro Arg Pro Pro Val Leu Ser Val Cys Ser Ser
          275          280          285
Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
          290          295          300
Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
305          310          315          320
Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
          325          330          335
Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
          340          345          350
Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
          355          360          365
Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
          370          375          380
Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
385          390          395          400
Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
          405          410          415
Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
          420          425          430
Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
          435          440          445
Val Thr Val Gly Asp Ala Ala Thr Thr Ala Ala Ala Ser Ser Ser Ser
          450          455          460
Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
465          470          475          480
Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
          485          490          495
Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
          500          505          510
Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
          515          520          525
Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
          530          535          540
Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
545          550          555          560
Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
          565          570          575
Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
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Val Trp Thr His Cys Gln Thr Gln His Gly Ile Val Lys Asn Pro Ser
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Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
          610          615          620
Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
625          630          635          640
Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
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Ala Gln Gln Val Ile Lys Arg Asn Leu Arg Ser Arg Ala Lys Gly Ala

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660				665				670							
Tyr	Ile	Cys	Thr	Tyr	Cys	Gly	Lys	Ala	Tyr	Arg	Phe	Leu	Ser	Gln	Phe
	675						680					685			
Lys	Gln	His	Ile	Lys	Met	His	Pro	Gly	Glu	Lys	Pro	Leu	Gly	Val	Asn
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Lys	Val	Ala	Lys	Pro	Lys	Glu	His	Ala	Pro	Leu	Ala	Ser	Pro	Val	Glu
705					710					715					720
Asn	Lys	Glu	Val	Tyr	Gln	Cys	Arg	Leu	Cys	Asn	Ala	Lys	Leu	Ser	Ser
				725					730						735
Leu	Leu	Glu	Gln	Gly	Ser	His	Glu	Arg	Leu	Cys	Arg	Asn	Ala	Ala	Val
			740					745					750		
Cys	Pro	Tyr	Cys	Ser	Leu	Arg	Phe	Phe	Ser	Pro	Glu	Leu	Lys	Gln	Glu
		755					760					765			
His	Glu	Ser	Lys	Cys	Glu	Tyr	Lys	Lys	Leu	Thr	Cys	Leu	Glu	Cys	Met
	770					775					780				
Arg	Thr	Phe	Lys	Ser	Ser	Phe	Ser	Ile	Trp	Arg	His	Gln	Val	Glu	Val
785					790					795					800
His	Asn	Gln	Asn	Asn	Met	Ala	Pro	Thr	Glu	Asn	Phe	Ser	Leu	Pro	Val
			805						810						815
Leu	Asp	His	Asn	Gly	Asp	Val	Thr	Gly	Ser	Ser	Arg	Pro	Gln	Ser	Gln
			820					825					830		
Pro	Glu	Pro	Asn	Lys	Val	Asn	His	Ile	Val	Thr	Thr	Lys	Asp	Asp	Asn
		835					840					845			
Val	Phe	Ser	Asp	Ser	Ser	Glu	Gln	Val	Asn	Phe	Asp	Ser	Glu	Asp	Ser
	850					855					860				
Ser	Cys	Leu	Pro	Glu	Asp	Leu	Ser	Leu	Ser	Lys	Gln	Leu	Lys	Ile	Gln
865					870					875					880
Val	Lys	Glu	Glu	Pro	Val	Glu	Glu	Ala	Glu	Glu	Glu	Ala	Pro	Glu	Ala
			885						890						895
Ser	Thr	Ala	Pro	Lys	Glu	Ala	Gly	Pro	Ser	Lys	Glu	Ala	Ser	Leu	Trp
			900					905					910		
Pro	Cys	Glu	Lys	Cys	Gly	Lys	Met	Phe	Thr	Val	His	Lys	Gln	Leu	Glu
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Arg	His	Gln	Glu	Leu	Leu	Cys	Ser	Val	Lys	Pro	Phe	Ile	Cys	His	Val
	930					935					940				
Cys	Asn	Lys	Ala	Phe	Arg	Thr	Asn	Phe	Arg	Leu	Trp	Ser	His	Phe	Gln
945					950					955					960
Ser	His	Met	Ser	Gln	Ala	Ser	Glu	Glu	Ser	Ala	His	Lys	Glu	Ser	Glu
			965						970						975
Val	Cys	Pro	Val	Pro	Thr	Asn	Ser	Pro	Ser	Pro	Pro	Pro	Leu	Pro	Pro
			980					985					990		
Pro	Pro	Pro	Leu	Pro	Lys	Ile	Gln	Pro	Leu	Glu					

<210> 3401

<211> 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3401

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 579

&lt;210&gt; 3402

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3402

Met	Pro	His	Phe	Gln	Thr	Leu	Gln	Ala	Ile	Val	Ser	His	Phe	Gln	Lys
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Leu	Phe	Asp	Val	Pro	Ser	Leu	Asn	Gly	Val	Tyr	Pro	Arg	Met	Asn	Glu
		20					25					30			
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
		35				40					45				
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
		50			55						60				
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65				70					75					80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
		85					90					95			
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
		100					105					110			
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115				120					125				
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
		130				135					140				
Ile	Phe	Thr	Val												
145															

&lt;210&gt; 3403

&lt;211&gt; 1696



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3403

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<210> 3404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 3404

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		20					25						30		
Ala	Ser	Glu	Cys	Thr	Glu	Leu	Pro	Lys	Ala	Glu	Lys	Trp	Arg	Arg	Gln
		35					40					45			
Ile	Ile	Gly	Glu	Ile	Ser	Lys	Lys	Val	Ala	Gln	Ile	Gln	Asn	Ala	Gly
	50					55					60				
Leu	Gly	Glu	Phe	Arg	Ile	Arg	Asp	Leu	Asn	Asp	Glu	Ile	Asn	Lys	Leu
65				70				75						80	
Leu	Arg	Glu	Lys	Gly	His	Trp	Glu	Val	Arg	Ile	Lys	Glu	Leu	Gly	Gly
				85				90						95	
Pro	Asp	Tyr	Gly	Lys	Val	Gly	Pro	Lys	Met	Leu	Asp	His	Glu	Gly	Lys
		100					105						110		
Glu	Val	Pro	Gly	Asn	Arg	Gly	Tyr	Lys	Tyr	Phe	Gly	Ala	Ala	Lys	Asp
	115					120					125				
Leu	Pro	Gly	Val	Arg	Glu	Leu	Phe	Glu	Lys	Xaa	Thr	Ser	Ser	Ser	Ser
	130					135					140				
Gln	Xaa	Lys	Thr	Arg	Ala	Glu	Leu	Met	Lys	Ala	Ile	Asp	Phe	Glu	Tyr
145					150					155				160	
Tyr	Gly	Tyr	Leu	Asp	Glu	Asp	Asp	Gly	Val	Ile	Val	Pro	Leu	Glu	Gln
			165					170						175	
Glu	Tyr	Glu	Lys	Lys	Leu	Arg	Ala	Glu	Leu	Val	Glu	Lys	Trp	Lys	Ala
		180					185						190		
Glu	Arg	Glu	Ala	Arg	Leu	Ala	Arg	Gly	Glu	Lys	Glu	Glu	Glu	Glu	Glu
	195					200						205			
Glu	Glu	Glu	Glu	Ile	Asn	Ile	Tyr	Ala	Val	Thr	Glu	Glu	Glu	Ser	Asp
	210					215					220				
Glu	Glu	Gly	Ser	Gln	Glu	Lys	Gly	Gly	Asp	Asp	Ser	Gln	Gln	Lys	Phe
225				230					235					240	
Ile	Ala	His	Val	Pro	Val	Pro	Ser	Gln	Gln	Glu	Ile	Glu	Glu	Ala	Leu
			245					250						255	
Val	Arg	Arg	Lys	Lys	Met	Glu	Leu	Leu	Gln	Lys	Tyr	Ala	Ser	Glu	Thr
		260					265						270		
Leu	Gln	Ala	Gln	Ser	Glu	Glu	Ala	Arg	Arg	Leu	Leu	Gly	Tyr		
	275						280					285			

<210> 3405

<211> 402

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3405

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agacaagctg gagacagcgc caagatgcgg cgctacgacg gggggcttaa aacactggaa
120
aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
gtggccatag gaaaaggccc ggcgtccacg cctacctaca gccctgcacc caccagccg
240
gcccctagaa tcgcgtcagc cccagagccc agggtcaccc tggagggacc ttctgccacc
300
gccccagcct catctccagg cttggctaag cccagatgc cccaggtcc ctgcagcctt
360
ccctctggcc cagttgcaga gccgccagcg cgactacaag ct
402

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&lt;210&gt; 3406

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3406

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Gly Trp Glu Ala Pro Leu Gln Glu Arg Leu Ala Phe Tyr Gln Thr Ala
1      5      10      15
Ile Glu Ser Ala Arg Gln Ala Gly Asp Ser Ala Lys Met Arg Arg Tyr
20     25     30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35     40     45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50     55     60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65     70     75     80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85     90     95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100    105    110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115    120    125
Pro Ala Arg Leu Gln Ala
130

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&lt;210&gt; 3407

&lt;211&gt; 535

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3407

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tttcccggac accatgcctt ctcggcggtg aggcagggtg cggcaccgac aggcccgggg
120

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 ccggcggggga cctttcccgga ancacctggc ctctctggga agcaggtggc ggcaccaaca  
 240  
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 300  
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 360  
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 420  
 attcgatttt ggctctgtag ggaaaggctc ttattttaaa aagatgtgca ctagagaaaa  
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<210> 3408

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3408

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Ser	Ala	Gly	Thr	Phe	Pro	Gly	His	His	Ala	Phe	Ser	Ala	Val	Arg	Gln
			20					25					30		
Val	Ala	Ala	Pro	Thr	Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Pro	Thr
		35					40					45			
Ser	Ser	Val	Ala	Arg	Gln	Val	Ala	Ala	Pro	Thr	Gly	Pro	Ala	Gly	Thr
		50				55					60				
Phe	Pro	Gly	Xaa	Pro	Gly	Leu	Leu	Gly	Lys	Gln	Val	Ala	Ala	Pro	Thr
65					70				75					80	
Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Leu	Ala	Ser	Ser	Ala	Arg	Gln
				85				90						95	
Val	Ala	Glu	Leu	Val	Pro	Arg	Leu	Ile	Phe	Leu	Arg	Gln	Thr	Cys	Leu
			100				105						110		
Gln	Arg	Lys	Leu	Cys	Ser	Thr	Gly	Glu	Thr	Gly	Lys	Cys	Thr	Arg	Tyr
		115					120					125			
Trp	Leu	Ile													
		130													

<210> 3409

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3409

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 120  
 gagagagagg aaccttgccg gtccgaggca gctctgcgcg tcccctcctg cgcttagcat  
 180  
 cctcggccca gcgcggcccg caccgccatg gaggtgctgg agagcgggga gcagggcgctg  
 240

ctgcagtggg accgcaagct gagcgagctg tcagagcccg gggacggcga ggccctcatg  
 300  
 taccacacgc acttctcaga acttctggat gagttttccc agaacgtctt gggtcagctc  
 360  
 ctgaatgatc ctttctcttc agagaagagt gtgtcaatgg aggtggaacc ttccccgacg  
 420  
 tccccggcgc ctctcatcca ggctgagcac agctactccc tgtgcgagga gcctcggggc  
 480  
 cagtcgccct tcaccacat taccaccagt gacagcttca atgacgatga ggtggaaagt  
 540  
 nngagaaatg gtacctgtct acagacttcc cttcaacatc catcaagaca gagccagtta  
 600  
 cagacgaacc acccccagga ctcgttccgt ctgtcactct gaccatcaca gccatctcca  
 660  
 ccncggttg aaaaggagga acctcctctg gaaatgaaca ctgggggtga ttcctcgtgc  
 720  
 cagaccatta ttcctaaaat taagctggag cctcatgaag tggatcagtt tctaaacttc  
 780  
 tctcctaaag aaggtctgtc tngccctccc tgtgtccctt tgggttatgg atatggtctc  
 840  
 tgggtctaca gagagggaaat atggcgagag agctgggatg agtttgtacc acagatggtg  
 900  
 tagctggctt tatgaaatag ctctgttctt aaaaaataaa aattttgctt ccaaataaa  
 959

&lt;210&gt; 3410

&lt;211&gt; 144

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3410

Met	Glu	Val	Leu	Glu	Ser	Gly	Glu	Gln	Gly	Val	Leu	Gln	Trp	Asp	Arg
1				5					10					15	
Lys	Leu	Ser	Glu	Leu	Ser	Glu	Pro	Gly	Asp	Gly	Glu	Ala	Leu	Met	Tyr
			20					25					30		
His	Thr	His	Phe	Ser	Glu	Leu	Leu	Asp	Glu	Phe	Ser	Gln	Asn	Val	Leu
			35				40					45			
Gly	Gln	Leu	Leu	Asn	Asp	Pro	Phe	Leu	Ser	Glu	Lys	Ser	Val	Ser	Met
			50			55					60				
Glu	Val	Glu	Pro	Ser	Pro	Thr	Ser	Pro	Ala	Pro	Leu	Ile	Gln	Ala	Glu
65					70					75				80	
His	Ser	Tyr	Ser	Leu	Cys	Glu	Glu	Pro	Arg	Ala	Gln	Ser	Pro	Phe	Thr
				85					90					95	
His	Ile	Thr	Thr	Ser	Asp	Ser	Phe	Asn	Asp	Asp	Glu	Val	Glu	Ser	Xaa
			100					105					110		
Arg	Asn	Gly	Thr	Cys	Leu	Gln	Thr	Ser	Leu	Gln	His	Pro	Ser	Arg	Gln
			115				120					125			
Ser	Gln	Leu	Gln	Thr	Asn	His	Pro	Gln	Asp	Ser	Phe	Arg	Leu	Ser	Leu
			130			135						140			

&lt;210&gt; 3411

&lt;211&gt; 958

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 3411  
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 180  
 acggccgggc acccagaccc caccgtcgca gtcgccacca cctcagtcca tccttggtac  
 240  
 cggcaatggg cttcgtatcc tccagtgcac ttgtaactga cttggacacg gaataactaag  
 300  
 aactcacttc tgtcctcatc ccagtgcgac cggcgggtgac catctcggct cttttgggct  
 360  
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 420  
 gagattcctg tgaccctcat cattaaagca ccgaatcaga aatacagtga ccagactatt  
 480  
 agctgcttct tgaactggac cgtggggaaa ctaaaaacgc atctatctaa cgtttacccct  
 540  
 agcaaaccat tgacgaagga tcagagattg gtgtattcgg gcagactgct tcccgatcat  
 600  
 ctgcagctga aagacattct cagaaaacaa gatgagtatc atatggttca tctagtatgt  
 660  
 acttctcgga ctctcccgag ttctccaaaa tccagcacca atagagaaag tcatgaagca  
 720  
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 780  
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 840  
 ccacaagcac aaactgacca agcacagagt caccagtttc catatgtaat gcaaggaaat  
 900  
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 958

<210> 3412

<211> 185

<212> PRT

<213> Homo sapiens

<400> 3412

Met	Asp	Gln	Ser	Gly	Met	Glu	Ile	Pro	Val	Thr	Leu	Ile	Ile	Lys	Ala
1				5					10					15	
Pro	Asn	Gln	Lys	Tyr	Ser	Asp	Gln	Thr	Ile	Ser	Cys	Phe	Leu	Asn	Trp
			20					25					30		
Thr	Val	Gly	Lys	Leu	Lys	Thr	His	Leu	Ser	Asn	Val	Tyr	Pro	Ser	Lys
		35					40					45			
Pro	Leu	Thr	Lys	Asp	Gln	Arg	Leu	Val	Tyr	Ser	Gly	Arg	Leu	Leu	Pro
		50				55					60				
Asp	His	Leu	Gln	Leu	Lys	Asp	Ile	Leu	Arg	Lys	Gln	Asp	Glu	Tyr	His
65					70					75				80	
Met	Val	His	Leu	Val	Cys	Thr	Ser	Arg	Thr	Pro	Pro	Ser	Ser	Pro	Lys
				85					90					95	
Ser	Ser	Thr	Asn	Arg	Glu	Ser	His	Glu	Ala	Leu	Ala	Ser	Ser	Ser	Asn

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120
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180
gctactgaag gaacagaaaag caggaagaaa gaaaaaagtt agttgtggcc ccagaagagt
240
tgtttttcaa atgccgagcc gtgaagcctc atgcactcaa cacaaagttt ttctttcata
300
tagataagcc tgaagaaaaa agaataagcc tgagtatgta ttttaggtgt ccaactatcc
360
attaccaaga agaaatctat tcgtttgagc ctgagacact ctttgaggta aaaaattaga
420
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480
gacaaaatta aagaagaacc agacaatgct caagagtatg gatgtgtcca acagccaaaa
540
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600
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660
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720
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780
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900
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960
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1080

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1620  
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2280  
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2340  
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2700



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3344

&lt;210&gt; 3414

&lt;211&gt; 723

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3414

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1				5					10					15	
Gln	Glu	Leu	Leu	Asp	Lys	Ile	Lys	Glu	Glu	Pro	Asp	Asn	Ala	Gln	Glu
			20					25					30		
Tyr	Gly	Cys	Val	Gln	Gln	Pro	Lys	Thr	Gln	Glu	Ser	Lys	Leu	Lys	Ile
		35					40					45			
Gly	Gly	Val	Ser	Ser	Val	Asn	Glu	Arg	Pro	Ile	Ala	Gln	Gln	Leu	Asn
		50				55					60				
Pro	Gly	Phe	Gln	Leu	Ser	Phe	Ala	Ser	Ser	Gly	Pro	Ser	Val	Leu	Leu
65					70					75				80	
Pro	Ser	Val	Pro	Ala	Val	Ala	Ile	Lys	Val	Phe	Cys	Ser	Gly	Cys	Lys
				85					90					95	
Lys	Met	Leu	Tyr	Lys	Gly	Gln	Thr	Ala	Tyr	His	Lys	Thr	Gly	Ser	Thr
		100						105					110		
Gln	Leu	Phe	Cys	Ser	Thr	Arg	Cys	Ile	Thr	Arg	His	Ser	Ser	Pro	Ala
		115					120					125			
Cys	Leu	Pro	Pro	Pro	Pro	Lys	Lys	Thr	Cys	Thr	Asn	Cys	Ser	Lys	Asp
		130				135					140				
Ile	Leu	Asn	Pro	Lys	Asp	Val	Ile	Thr	Thr	Arg	Phe	Glu	Asn	Ser	Tyr
145					150					155				160	
Pro	Ser	Lys	Asp	Phe	Cys	Ser	Gln	Ser	Cys	Leu	Ser	Ser	Tyr	Glu	Leu
			165						170					175	
Lys	Lys	Lys	Pro	Val	Val	Thr	Ile	Tyr	Thr	Lys	Ser	Ile	Ser	Thr	Lys
			180					185					190		
Cys	Ser	Met	Cys	Gln	Lys	Asn	Ala	Asp	Thr	Arg	Phe	Glu	Val	Lys	Tyr

		195					200					205				
Gln	Asn	Val	Val	His	Gly	Leu	Cys	Ser	Asp	Ala	Cys	Phe	Ser	Lys	Phe	
	210					215					220					
His	Ser	Thr	Asn	Asn	Leu	Thr	Thr	Asn	Cys	Cys	Glu	Asn	Cys	Gly	Ser	
225					230					235					240	
Tyr	Cys	Tyr	Ser	Ser	Ser	Gly	Pro	Cys	Gln	Ser	Gln	Lys	Val	Phe	Ser	
				245					250					255		
Ser	Thr	Ser	Val	Thr	Ala	Tyr	Lys	Gln	Asn	Ser	Ala	Gln	Ile	Pro	Pro	
			260				265						270			
Tyr	Ala	Leu	Gly	Lys	Ser	Leu	Arg	Ser	Ser	Ala	Glu	Met	Ile	Glu	Asn	
		275					280					285				
Thr	Asn	Ser	Leu	Gly	Lys	Thr	Glu	Leu	Phe	Cys	Ser	Ile	Asn	Cys	Leu	
	290					295					300					
Ser	Ala	Tyr	Arg	Val	Lys	Thr	Val	Thr	Ser	Ala	Gly	Val	Gln	Val	Ser	
305					310					315					320	
Cys	His	Ser	Cys	Lys	Thr	Ser	Ala	Ile	Pro	Gln	Tyr	His	Leu	Ala	Met	
				325					330					335		
Ser	Asp	Gly	Thr	Ile	Tyr	Ser	Phe	Cys	Ser	Ser	Ser	Cys	Val	Val	Ala	
			340				345						350			
Phe	Gln	Asn	Val	Phe	Ser	Lys	Pro	Lys	Gly	Thr	Asn	Ser	Ser	Ala	Val	
		355					360					365				
Pro	Leu	Ser	Gln	Gly	Gln	Val	Val	Val	Ser	Pro	Pro	Ser	Ser	Arg	Ser	
	370					375					380					
Ala	Val	Ser	Ile	Gly	Gly	Gly	Asn	Thr	Ser	Ala	Val	Ser	Pro	Ser	Ser	
385					390					395					400	
Ile	Arg	Gly	Ser	Ala	Ala	Ala	Ser	Leu	Gln	Pro	Leu	Gly	Glu	Gln	Ser	
				405					410					415		
Gln	Gln	Val	Ala	Leu	Thr	His	Thr	Val	Val	Lys	Leu	Lys	Cys	Gln	His	
			420				425						430			
Cys	Asn	His	Leu	Phe	Ala	Thr	Lys	Pro	Glu	Leu	Leu	Phe	Tyr	Lys	Gly	
		435					440					445				
Lys	Met	Phe	Leu	Phe	Cys	Gly	Lys	Asn	Cys	Ser	Asp	Glu	Tyr	Lys	Lys	
	450					455					460					
Lys	Asn	Lys	Val	Val	Ala	Met	Cys	Glu	Tyr	Cys	Lys	Ile	Glu	Lys	Ile	
465					470					475					480	
Val	Lys	Glu	Thr	Val	Arg	Phe	Ser	Gly	Ala	Asp	Lys	Ser	Phe	Cys	Ser	
				485					490					495		
Glu	Gly	Cys	Lys	Leu	Leu	Tyr	Lys	His	Asp	Leu	Ala	Lys	Arg	Trp	Gly	
			500				505						510			
Asn	His	Cys	Lys	Met	Cys	Ser	Tyr	Cys	Ser	Gln	Thr	Ser	Pro	Asn	Leu	
		515					520					525				
Val	Gln	Asn	Arg	Leu	Glu	Gly	Lys	Leu	Glu	Glu	Phe	Cys	Cys	Glu	Asp	
	530					535					540					
Cys	Met	Ser	Lys	Phe	Thr	Val	Leu	Phe	Tyr	Gln	Met	Ala	Lys	Cys	Asp	
545					550					555					560	

625		630		635		640									
Leu	Ser	Thr	Gly	Asn	Thr	Asn	Ser	Val	Leu	Lys	Gly	Ala	Val	Thr	Lys
				645						650				655	
Glu	Ala	Ala	Lys	Ile	Ile	Gln	Asp	Glu	Ser	Thr	Gln	Glu	Asp	Ala	Met
			660					665					670		
Lys	Phe	Pro	Ser	Ser	Gln	Ser	Ser	Gln	Pro	Ser	Arg	Leu	Leu	Lys	Asn
		675				680						685			
Lys	Gly	Ile	Ser	Cys	Lys	Pro	Val	Thr	Gln	Thr	Lys	Ala	Thr	Ser	Cys
	690				695						700				
Lys	Pro	His	Thr	Gln	His	Lys	Glu	Cys	Gln	Thr	Glu	Cys	Pro	Val	Arg
705				710						715				720	
Ala	Val	Cys													

&lt;210&gt; 3415

&lt;211&gt; 3501

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3415

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1020

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&lt;210&gt; 3416

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3416

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1				5					10					15	
Glu	Val	Ile	Gln	Asn	Ser	Lys	Glu	Val	Leu	Ser	Leu	Leu	Gln	Glu	Lys
			20					25					30		
Asn	Pro	Ala	Phe	Lys	Pro	Val	Leu	Ala	Ile	Ile	Gln	Ala	Gly	Asp	Asp
		35					40					45			
Asn	Leu	Met	Gln	Glu	Ile	Asn	Gln	Asn	Leu	Ala	Glu	Glu	Ala	Gly	Leu
		50				55					60				
Asn	Ile	Thr	His	Ile	Cys	Leu	Pro	Pro	Asp	Ser	Ser	Glu	Ala	Glu	Ile
65				70					75					80	
Ile	Asp	Glu	Ile	Leu	Lys	Ile	Asn	Glu	Asp	Thr	Arg	Val	His	Gly	Leu
			85					90						95	
Ala	Leu	Gln	Ile	Ser	Glu	Asn	Leu	Phe	Ser	Asn	Lys	Val	Leu	Asn	Ala
		100					105						110		
Leu	Lys	Pro	Glu	Lys	Asp	Val	Asp	Gly	Val	Thr	Asp	Ile	Asn	Leu	Gly
		115				120					125				
Lys	Leu	Val	Arg	Gly	Asp	Ala	His	Glu	Cys	Phe	Val	Ser	Pro	Val	Ala

130 135 140  
 Lys Ala Val Ile Glu Leu Leu Glu Lys Ser Val Gly Val Asn Leu Asp  
 145 150 155 160  
 Gly Lys Lys Ile Leu Val Val Gly Ala His Gly Ser Leu Glu Ala Ala  
 165 170 175  
 Leu Gln Cys Leu Phe Gln Arg Lys Gly Ser Met Thr Met Ser Ile Gln  
 180 185 190  
 Trp Lys Thr Arg Gln Leu Gln Ser Lys Leu His Glu Ala Asp Ile Val  
 195 200 205  
 Val Leu Gly Ser Pro Lys Pro Glu Glu Ile Pro Leu Thr Trp Ile Gln  
 210 215 220  
 Pro Gly Thr Thr Val Leu Asn Cys Ser His Asp Phe Leu Ser Gly Lys  
 225 230 235 240  
 Val Gly Cys Gly Ser Pro Arg Ile Xaa Ile Leu Val Asp Ser Leu Arg  
 245 250 255  
 Lys Met Met

&lt;210&gt; 3417

&lt;211&gt; 405

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3417

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 120  
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 180  
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 240  
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 300  
 cgatattgaa aatagaaatt gattgtggtt aagttagttg gagtatttga cagttctaaa  
 360  
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 405

&lt;210&gt; 3418

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3418

Met Ala Ala Ala Thr Glu His Asn Arg Pro Ser Ser Gly Asp Arg Asn  
 1 5 10 15  
 Leu Glu Arg Arg Cys Ser Pro Asn Leu Ser Arg Glu Val Leu Tyr Glu  
 20 25 30  
 Ile Phe Arg Ser Leu His Thr Leu Val Gly Gln Leu Asp Leu Arg Asp  
 35 40 45  
 Asp Val Val Lys Ile Thr Ile Asp Trp Asn Lys Leu Gln Ser Leu Ser  
 50 55 60  
 Ala Phe Gln Pro Ala Leu Leu Phe Ser Ala Leu Glu Gln His Ile Leu

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65                               70                               75                               80
Tyr Leu Gln Val Asn Phe Leu Leu Glu Met Ile Thr Arg Tyr
      85                               90

<210> 3419
<211> 418
<212> DNA
<213> Homo sapiens

<400> 3419
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120
aatggggcta cgtcgcgtga cctcacgtgt gggtcctctg agcgtagtgc tttccagggc
180
aaccgtgtca cagtgcagat ggacgcacgg acggcggtga gcctttaacg ccaagcaaca
240
agtcccattg tggacggagg tttgcatttc tcctgggtcc acatctatgg tgccccata
300
gggcgccttg aggcctgccc cggtcaggct tgccatttct ggggaagagg actggggggg
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418

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<210> 3420
<211> 105
<212> PRT
<213> Homo sapiens
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Ile Asp Val Asp Pro Gly Glu Met Gln Thr Ser Val His Asn Gly Thr
      20              25              30
Cys Cys Leu Ala Leu Lys Ala His Arg Arg Pro Cys Val His Leu His
      35              40              45
Cys Asp Thr Val Ala Leu Glu Ser Thr Thr Leu Arg Gly Thr Thr Arg
      50              55              60
Glu Val Thr Arg Arg Ser Pro Ile Asn Met Lys His Pro Glu Gln Gly
65              70              75              80
Glu Pro Gly Gly Pro Ala Asp Gln Trp Val Pro Arg Arg Glu Trp Ala
      85              90              95
Gly Trp Asp Gly Ser Gly Val Asn Arg
      100              105

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<210> 3421
<211> 2988
<212> DNA
<213> Homo sapiens
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60
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120  
ggactgcagg ggaagctcca gcttaaaatg taacatgtcc gtcttcccat cctgggttcc  
180  
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240  
gcgcggggct ctgctccaaa gccgcgctgt tcctgctgct ggccgctgcg ctcacgtaca  
300  
tcccgcgct gctggtggcc ttccggagcc acgggttttg gctgaagcgg agcagctacg  
360  
aggagcagcc gaccgtgcgc ttccaacacc aggtgctgct cgtggccctg ctcggaccgg  
420  
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480  
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540  
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600  
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1680



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 2988

&lt;210&gt; 3422

&lt;211&gt; 418

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3422

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 Ser Ser Pro Gly Arg Trp Pro Pro Ala Ala Arg Met Trp Leu Pro Arg

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Phe	Ser	Ser	Lys	Thr	Val	Thr	Val	Leu	Leu	Leu	Ala	Gln	Thr	Thr	Cys
		35					40					45			
Leu	Leu	Leu	Phe	Ile	Ile	Ser	Arg	Pro	Gly	Pro	Ser	Ser	Pro	Ala	Gly
	50					55					60				
Gly	Glu	Asp	Arg	Val	His	Val	Leu	Val	Leu	Ser	Ser	Trp	Arg	Ser	Gly
65					70					75					80
Ser	Ser	Phe	Leu	Gly	Gln	Leu	Phe	Ser	Gln	His	Pro	Asp	Val	Phe	Tyr
			85					90					95		
Leu	Met	Glu	Pro	Ala	Trp	His	Val	Trp	Thr	Thr	Leu	Ser	Gln	Gly	Ser
			100					105					110		
Ala	Ala	Thr	Leu	His	Met	Ala	Val	Arg	Asp	Leu	Met	Arg	Ser	Ile	Phe
		115					120					125			
Leu	Cys	Asp	Met	Asp	Val	Phe	Asp	Ala	Tyr	Met	Glu	Pro	Gly	Pro	Arg
	130					135					140				
Arg	Gln	Ser	Ser	Leu	Phe	Gln	Trp	Glu	Asn	Ser	Arg	Ala	Leu	Cys	Ser
145					150					155					160
Ala	Pro	Ala	Cys	Asp	Ile	Ile	Pro	Gln	Asp	Glu	Ile	Ile	Pro	Arg	Ala
			165						170					175	
His	Cys	Arg	Leu	Leu	Cys	Ser	Gln	Gln	Pro	Phe	Glu	Val	Val	Glu	Lys
			180					185					190		
Ala	Cys	Arg	Ser	Tyr	Ser	His	Val	Val	Leu	Lys	Glu	Val	Arg	Phe	Phe
		195					200					205			
Asn	Leu	Gln	Ser	Leu	Tyr	Pro	Leu	Leu	Lys	Asp	Pro	Ser	Leu	Asn	Leu
	210					215					220				
His	Ile	Val	His	Leu	Val	Arg	Asp	Pro	Arg	Ala	Val	Leu	Arg	Ser	Arg
225					230					235					240
Glu	Ala	Ala	Gly	Pro	Ile	Leu	Ala	Arg	Asp	Asn	Gly	Ile	Val	Leu	Gly
			245						250					255	
Thr	Asn	Gly	Lys	Trp	Val	Glu	Ala	Asp	Pro	His	Leu	Arg	Leu	Ile	Arg
			260					265					270		
Glu	Val	Cys	Arg	Ser	His	Val	Arg	Ile	Ala	Glu	Ala	Ala	Thr	Leu	Lys
		275					280					285			
Pro	Pro	Pro	Phe	Leu	Arg	Gly	Arg	Tyr	Arg	Leu	Val	Arg	Phe	Glu	Asp
	290					295					300				
Leu	Ala	Arg	Glu	Pro	Leu	Ala	Glu	Ile	Arg	Ala	Leu	Tyr	Ala	Phe	Thr
305					310					315					320
Gly	Leu	Thr	Leu	Thr	Pro	Gln	Leu	Glu	Ala	Trp	Ile	His	Asn	Ile	Thr
			325						330					335	
His	Gly	Ser	Gly	Ile	Gly	Lys	Pro	Ile	Glu	Ala	Phe	His	Thr	Ser	Ser
			340					345					350		
Arg	Asn	Ala	Arg	Asn	Val	Ser	Gln	Ala	Trp	Arg	His	Ala	Leu	Pro	Phe
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Thr	Lys	Ile	Leu	Arg	Val	Gln	Glu	Val	Cys	Ala	Gly	Ala	Leu</		

<210> 3423

<211> 1851

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3423

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120  
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180  
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240  
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360  
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420  
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900  
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960  
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1380  
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1440  
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1500

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 1560  
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 1680  
 aagtccgaca tctccaggcc cccactgaac tccggggacc tctactgact gcttgctggg  
 1740  
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 1851

<210> 3424

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3424

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Gln	Arg	Trp	Val	Ile	Gly	Arg	Cys	Leu	Cys	Val	Pro	Glu	Arg	Ser	Leu
			20					25					30		
Ala	Ser	Tyr	Gly	Val	Arg	Gln	Asp	Gly	Asp	Pro	Ala	Phe	Leu	Tyr	Leu
		35					40					45			
Leu	Ser	Ala	Pro	Arg	Glu	Ala	Pro	Ala	Thr	Gly	Pro	Ser	Pro	Gln	His
		50				55					60				
Pro	Gln	Lys	Met	Asp	Gly	Glu	Leu	Gly	Arg	Leu	Phe	Pro	Pro	Ser	Leu
65					70				75						80
Gly	Leu	Pro	Pro	Gly	Pro	Gln	Pro	Ala	Ala	Ser	Ser	Leu	Pro	Ser	Pro
			85					90					95		
Leu	Gln	Pro	Ser	Trp	Ser	Cys	Pro	Ser	Cys	Thr	Phe	Ile	Asn	Ala	Pro
		100						105					110		
Asp	Arg	Pro	Gly	Cys	Glu	Met	Cys	Ser	Thr	Gln	Arg	Pro	Cys	Thr	Trp
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		130					135								

<210> 3425

<211> 1416

<212> DNA

<213> Homo sapiens

<400> 3425

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 120  
 gaggaggaag tgaggccgcg cggaaggaag gcggcgagcc ccggggcccc gaggccttgg  
 180  
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 240  
 gacggcacgt gtgacgagtg cgagcccgcg gaggctccgg gggccgagga agtgtgccga  
 300

gaatgcggct tctgctactg ccgccgccat gccgaggcgc acaggcagaa gttcctcagt  
 360  
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 420  
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 480  
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 540  
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 600  
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 660  
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 720  
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 780  
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 960  
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 1080  
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 1140  
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 1200  
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 tgctcagcaa caaacgtact tccaccagat gtgtccccag atccacagca ggcacatatc  
 1380  
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 1416

&lt;210&gt; 3426

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens.

&lt;400&gt; 3426

Ser Gly Gly Lys Gly Leu Cys Cys Cys Ala Arg Ala Gly Ala Ala Ala  
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 20 25 30  
 Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Glu Val Arg Pro Arg Gly  
 35 40 45  
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser  
 50 55 60  
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

65	70										75				80			
Asp	Gly	Thr	Cys	Asp	Glu	Cys	Glu	Pro	Asp	Glu	Ala	Pro	Gly	Ala	Glu			
				85					90					95				
Glu	Val	Cys	Arg	Glu	Cys	Gly	Phe	Cys	Tyr	Cys	Arg	Arg	His	Ala	Glu			
				100					105					110				
Ala	His	Arg	Gln	Lys	Phe	Leu	Ser	His	His	Leu	Ala	Glu	Tyr	Val	His			
				115					120					125				
Gly	Ser	Gln	Ala	Trp	Thr	Pro	Pro	Ala	Asp	Gly	Glu	Gly	Ala	Gly	Lys			
				130					135					140				
Glu	Glu	Ala	Glu	Val	Lys	Val	Glu	Gln	Glu	Arg	Glu	Ile	Glu	Ser	Glu			
145					150					155					160			
Ala	Gly	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Glu			
				165					170					175				
Ser	Glu	Thr	Glu	Glu	Glu	Ser	Glu	Asp	Glu	Ser	Asp	Glu	Glu	Ser	Glu			
				180					185					190				
Glu	Asp	Ser	Glu	Glu	Glu	Met	Glu	Asp	Glu	Gln	Glu	Ser	Glu	Ala	Glu			
				195					200					205				
Glu	Asp	Asn	Gln	Glu	Glu	Gly	Glu	Ser	Glu	Ala	Glu	Gly	Glu	Thr	Glu			
				210					215					220				
Ala	Glu	Ser	Glu	Phe	Asp	Pro	Glu	Ile	Glu	Met	Glu	Ala	Glu	Arg	Val			
225					230					235					240			
Ala	Lys	Arg	Lys	Cys	Pro	Asp	His	Gly	Leu	Asp	Leu	Ser	Thr	Tyr	Cys			
				245					250					255				
Gln	Glu	Asp	Arg	Gln	Leu	Ile	Cys	Val	Leu	Cys	Pro	Val	Ile	Gly	Ala			
				260					265					270				
His	Gln	Gly	His	Gln	Leu	Ser	Thr	Leu	Asp	Glu	Ala	Phe	Glu	Glu	Leu			
				275					280					285				
Arg	Ser	Lys	Asp	Ser	Gly	Gly	Leu	Lys	Ala	Ala	Met	Ile	Glu	Leu	Val			
				290					295					300				
Glu	Arg	Leu	Lys	Phe	Lys	Ser	Ser	Asp	Pro	Lys	Val	Thr	Arg	Asp	Gln			
305					310					315					320			
Met	Lys	Met	Phe	Ile	Gln	Glu	Phe	Lys	Lys	Val	Gln	Lys	Val	Ile				
				325					330					335				
Ala	Asp	Glu	Glu	Gln	Lys	Ala	Leu	His	Leu	Val	Asp	Ile	Gln	Glu	Ala			
				340					345					350				
Met	Ala	Thr	Ala	His	Val	Thr	Glu	Ile	Leu	Ala	Asp	Ile	Gln	Ser	His			
				355					360					365				
Met	Asp	Arg	Leu	Met	Thr	Gln	Met	Ala	Gln	Ala	Lys	Glu	Gln	Leu	Asp			
				370					375					380				
Thr	Ser	Asn	Glu	Ser	Ala	Glu	Pro	Lys	Ala	Glu	Gly	Asp	Glu	Glu	Gly			
385					390					395					400			
Pro	Ser	Gly	Ala	Ser	Glu	Glu	Glu	Asp	Thr									
				405					410									

<210> 3427

<211> 580

<212> DNA

<213> Homo sapiens

<400> 3427

<400> 3427  
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120

gggctctggat tgagacttgg accttctgag cactggcaga tgtactggct tctcttcagg  
 180  
 caggattttc tctggacaca actctgaact tagactcttt aaggactctg cactcctgtg  
 240  
 cagcatggaa gagttcaaag ttcccatatt gctcatcttc tcacaatctt ctgtttccat  
 300  
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 360  
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 420  
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 ccctgaagcc ccattggtcca gttccaattc ctgaagcctt ctactgcttg cagggcctgg  
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<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

Met	Asp	Ser	Leu	Ala	Leu	Ser	Asn	Ile	Thr	Gly	Ala	Ser	Val	Asp	Gly
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Glu	Asn	Lys	Pro	Arg	Pro	Ser	Leu	Tyr	Ser	Leu	Gln	Asn	Phe	Glu	Glu
			20					25					30		
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
		35				40						45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
	50					55				60					
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65					70				75					80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
			85					90					95		
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
		100					105					110			
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
		115					120					125			
Glu	Arg	Gly	Ser												
		130													

<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 120  
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 180

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 240  
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<210> 3430

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3430

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Arg	Arg	Ser	Leu	His	Glu	Gln	Val	His	Gln	Gly	Pro	Val	Pro	Leu	Ser
			20					25					30		
Tyr	Thr	Val	Thr	Thr	Val	Thr	Thr	Gln	Gly	Phe	Pro	Leu	Pro	Thr	Gly
		35				40						45			
Gln	His	Ile	Pro	Gly	Cys	Ser	Ala	Gln	Gln	Leu	Pro	Ala	Cys	Ser	Val
	50					55				60					
Met	Phe	Ser	Gly	Gln	His	Tyr	Pro	Leu	Cys	Cys	Leu	Pro	Pro	Pro	Leu
65					70					75					80
Ile	Gln	Ala	Cys	Thr	Met	Gln	Gln	Leu	Pro	Val	Pro	Tyr	Gln	Ala	Tyr
				85				90						95	
Pro	His	Leu	Ile	Ser	Ser	Asp	His	Tyr	Ile	Leu	His	Pro	Pro	Pro	Pro
			100				105						110		
Gly	Thr	His	Pro	Ala	Ala	Pro	Gly	Ser	Val						
			115				120								

<210> 3431

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 3431

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 120  
 ctgcgtggga gcagcgtccc aatgccagcg cgtcacgtcg ccagcgtgc cctagcacgc  
 180  
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 240



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 300  
 gccatcggcc agtgggatct ggtgtgtgac ctgggctggc aggtgatcct ggagcagatc  
 360  
 ctcttcatct tgggctttgc ctccggctac ctgttctctg gttaccccg c agacagattt  
 420  
 ggccgtcgcg ggattgtgct gctgaccttg gggctgggtg gccctgtgg agtaggaggg  
 480  
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 540  
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 660  
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 720  
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 aaaaatctgc ttatctctgg cttcaccaac ttcatgccc atgccattcg ccaactgtac  
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 ggcatecttc ttctctccat gacccttacc ggcattgctt ccctggctct gctgggctg  
 1200  
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 1320  
 gccgccatcc tcagaccct ccttgcctg gaggtcatcc ccaccactgt ccggggccgt  
 1380  
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&lt;210&gt; 3432

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3432

Met Ala Leu Arg Phe Leu Leu Gly Phe Leu Leu Ala Gly Val Asp Leu  
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 Gly Val Tyr Leu Met Arg Leu Glu Leu Cys Asp Pro Thr Gln Arg Leu  
 20 25 30  
 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu  
 35 40 45  
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50	55	60
Met Ile Thr Ala Pro Cys Ile Leu Phe Leu Phe Tyr Gly Trp Pro Gly		
65	70	75
Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu		80
	85	90
Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His		95
	100	105
Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu		110
	115	120
Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu		125
	130	135
Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr		140
	145	150
Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly		155
	160	165
Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly		170
	175	180
Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe		185
	190	195
Gly Arg Arg Gly Ile Leu Leu Ser Met Thr Leu Thr Gly Ile Ala		200
	205	210
Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro		215
	220	225
Thr Val Trp Ala Gln Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala		230
	235	240
Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala		245
	250	255
Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val		260
	265	270
Arg Gly Arg Gly Leu Gly Leu Ile		275
	280	285
290	295	

&lt;210&gt; 3433

&lt;211&gt; 1257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3433

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 120  
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 180  
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 240  
 cgtctcctga gagagaagga ggccaagatc aggaaggcct tggacaggct tcgcaagaag  
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 420  
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 480

agctgcggtg agcacgtgcc caggagaggg gggtcccatg gtcgcggtgt ggggtacacc  
 540  
 agctgctgtg agagctcacc caggagacgg gtttctgtg gtctctgtgt ggggtacagc  
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 720  
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 780  
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 840  
 aatccaccog tgtacaccac aatgtccctc togtctgcac cgctctctg tctacactgg  
 900  
 caccactgcc ccagctatac caccaccccg tctacataat ccacccatct gtctacacca  
 960  
 tcgcctctcc tctgtctaca ccacctctct gtcaacaccg gcaccactgc cgtatctata  
 1020  
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 1080  
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 1140  
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<210> 3434

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
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Ser	Asn	Leu	Lys	Arg	Asp	Val	Ala	His	Leu	Tyr	Arg	Gly	Val	Gly	Ser
50						55				60					
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Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
				85				90						95	
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
			100					105					110		
Pro	Val	Ile	Ser	Val	Val	Gly	Tyr	Thr	Asn	Cys	Gly	Glu	His	Ala	Pro
			115				120					125			
Arg	Gly	Gly	Ala	Phe	Arg	Gly	Leu	Arg	Val	Thr	Gly	Glu	Asp	Ser	Pro
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Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
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Cys	Gly	Glu	His	Val	Pro	Arg	Arg	Gly	Gly	Ser	His	Gly	Arg	Arg	Val

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<210> 3435
<211> 1225
<212> DNA
<213> Homo sapiens
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300
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720
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780
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840

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 1225

&lt;210&gt; 3436

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3436

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 Glu Phe Asn Val Ser Cys Leu Thr Asp Ser Asn Ala Asp Thr Tyr Trp  
 35 40 45  
 Glu Ser Asp Gly Ser Gln Cys Gln His Trp Val Arg Leu Thr Met Lys  
 50 55 60  
 Lys Gly Thr Ile Val Lys Lys Leu Leu Leu Ala Val Asp Thr Thr Asp  
 65 70 75 80  
 Asp Asn Phe Met Pro Lys Arg Val Val Val Tyr Gly Gly Glu Gly Asp  
 85 90 95  
 Asn Leu Lys Lys Leu Ser Asp Val Ser Ile Asp Xaa Arg Pro Ser Ser  
 100 105 110  
 Gly Xaa Val Cys Val Leu Glu Asp Met Thr Val His Leu Pro Ile Ile  
 115 120 125  
 Glu Ile Arg Ile Val Glu Cys Arg Asp Asp Gly Ile Asp Val Arg Leu  
 130 135 140  
 Arg Gly Val Lys Ile Lys Ser Ser Arg Gln Arg Glu Leu Gly Leu Asn  
 145 150 155 160  
 Ala Asp Leu Phe Gln Pro Thr Ser Leu Val Arg Tyr Pro Arg Leu Glu  
 165 170 175  
 Gly Thr Asp Pro Glu Val Leu Tyr Arg Arg Ala Val Leu Leu Gln Arg  
 180 185 190  
 Phe Ile Lys Ile Leu Asp Ser Val Leu His His Leu Val Pro Ala Trp  
 195 200 205  
 Asp His Thr Leu Gly Thr Phe Ser Glu Ile Lys Gln Val Lys Gln Phe  
 210 215 220  
 Leu Leu Leu Ser Arg Gln Arg Pro Gly Leu Val Ala Gln Cys Leu Arg  
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 Asp Ser Glu Ser Ser Lys Pro Ser Phe Met Pro Arg Leu Tyr Ile Asn  
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[illegible]

<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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tgagcgtgcc 240	agttcctgtg	cacacaagcg	ctcagcatcc	tggggcagca	cagaccaccg
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 2081

&lt;210&gt; 3438

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3438

Ala	Cys	Gln	Phe	Leu	Cys	Thr	Gln	Ala	Leu	Ser	Ile	Leu	Gly	Gln	His
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Arg	Pro	Pro	Lys	Arg	Asp	Phe	Gln	Val	Glu	Ala	Thr	Thr	Ala	Glu	Asp
			20					25					30		
Glu	Ala	Glu	Pro	Gln	Trp	Glu	Arg	Glu	Gly	Ala	Arg	Phe	Thr	Thr	Pro

35						40						45					
Arg	Gly	Pro	Arg	Ser	Ala	Gly	Ser	Thr	Glu	Gly	Val	Pro	Ser	Gln	Leu		
50						55						60					
Pro	Leu	Arg	Val	Pro	Cys	Leu	Ala	Thr	Gln	Pro	Leu	Pro	Ala	Gln	Glu		
65			70						75			80					
Pro	Gly	Arg	Ala	Gln	Pro	Arg	Ala	Gly	Gly	Gly	Ile	Cys	Glu	Gly	Ala		
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Gly	Arg	Arg	Gly	Ala	Ala	Glu	Asp	Pro									
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<210> 3439
<211> 1519
<212> DNA
<213> Homo sapiens
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1080
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1140

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<210> 3440

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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		20						25				30		Ala
Val	Ala	Ala	Ala	Ala	Arg	Trp	Pro	Arg	Gln	Pro	Arg	His	Pro	Arg
	35					40						45		His
Thr	Ser	Pro	Met	Pro	Pro	Pro	Ala	Ala	Leu	Arg	Pro	Pro	Ala	Gly
	50					55					60			Pro
Arg	Arg	Pro	Arg	Xaa	Pro	Gly	Gly	Pro	Gln	His	His	Gln	Pro	Gln
65					70				75				80	Pro
Pro	Leu	Trp	Thr	Pro	Thr	Pro	Pro	Ser	Pro	Ala	Ser	Asp	Trp	Pro
			85						90				95	Pro
Leu	Pro	Pro	Asn	Arg	Pro	Pro	Gln	Asn	Pro	Gly	Pro	Thr	Leu	Pro
			100					105					110	Trp
Arg	Gln	Arg	Asp	Lys	Gly	Gly	Pro	Ser	Pro	Leu	Pro	Glu	Ala	Arg
	115					120						125		Thr
Pro	Trp	Gly	Gly	Gly	Glu	Asp	Val	Ser	Ala	Gly	Pro	Leu	Xaa	Thr
	130					135					140			Pro
Phe	Leu	Ser	Ala	Pro	Leu	Val	Pro	Arg	Ser	Pro	Gly	Gly	Glu	Ser
145					150					155				Ala
Asp	Ser	Ser	Gln	Ala	Gly	Thr	Arg	Leu	Val	Pro	Glu	His	Ala	Ala
			165						170					Ala
His	Thr	Gln	Gly	His	Gly	Pro	Ser	Gly	Pro	Gly	Thr	Trp	Ser	Gly
		180						185					190	Ser
Glu	Arg	Pro	Gly	Cys	Leu	Ala	Asp	Arg	Thr	Ser	Glu	Thr	Thr	Gln
	195					200					205			Pro
Ser	Phe	Glu	Asp	Ala	Pro	Ala	Gln	Pro	Ser	Pro	Gly	Val	Pro	Trp
	210					215					220			Arg
Thr	Thr	Leu	Ala	Glu	Thr	Leu	Leu	Ile	Pro	Gly	Leu	Glu	Leu	Gly
225					230					235				240
Gly	Arg	Gln	Ala	Ser	Thr	Pro	Thr	Leu	Gly	Asn	Ala	Glu	Pro	Leu
			245						250				255	Arg
Met	Cys	Ala	Arg	Gly	Arg	Val	Cys	Val	Phe	Leu	Arg	Val	Ser	Leu
														Phe

	260		265		270									
Arg	Ser	Asn	Leu	Val	Pro	Gly	Ala	Ala	Gly	Leu	Cys	Met	Leu	Val
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&lt;210&gt; 3441

&lt;211&gt; 2074

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3441

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1320

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<210> 3442

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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			20					25					30		
Ala	Glu	Leu	Leu	Met	Ser	Leu	His	Asp	Leu	Asp	Val	Gly	Glu	Ile	Cys
			35				40					45			
Thr	Val	Asp	Pro	Cys	His	Lys	Phe	Thr	Trp	Cys	Leu	Asp	Ala	Cys	Ile
		50				55				60					
Arg	Glu	Arg	Phe	Val	Asp	Ser	Lys	Arg	Ala	Arg	Glu	Leu	Gln	Gly	Phe
65					70					75				80	
Leu	Asp	Asp	Val	Lys	Lys	Gly	Gln	Glu	Gln	Val	Leu	Gly	Asp	Leu	Ser
			85				90						95		
Met	Ile	Leu	Cys	Asp	Pro	Phe	Ala	Ile	Asn	Thr	Leu	Ala	Leu	Ser	Thr
			100				105						110		
Val	Arg	His	Leu	Gln	Glu	Leu	Val	Gly	Gln	Glu	Thr	Leu	Pro	Arg	Asp
		115				120						125			
Ser	Pro	Asp	Leu	Leu	Leu	Leu	Arg	Leu	Leu	Ala	Leu	Gly	Gln	Gly	
		130				135				140					
Ala	Trp	Asp	Met	Ile	Asp	Ser	Gln	Val	Phe	Lys	Glu	Pro	Lys	Met	Glu
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Val	Glu	Leu	Ile	Thr	Arg	Phe	Leu	Pro	Met	Leu	Met	Ser	Phe	Leu	Val

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 180 185 190  
 Ala Pro Val Ser Tyr Pro Asn Thr Leu Pro Glu Ser Phe Thr Lys Phe  
 195 200 205  
 Leu Gln Glu Gln Arg Met Ala Cys Glu Val Gly Leu Tyr Tyr Val Leu  
 210 215 220  
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 225 230 235 240  
 Gly Leu Val Glu Thr Phe Gly Asp Leu Ala Phe Gly Asp Ile Phe Leu  
 245 250 255  
 His Leu Leu Thr Gly Asn Leu Ala Leu Leu Ala Asp Glu Phe Ala Leu  
 260 265 270  
 Glu Asp Phe Cys Ser Ser Leu Phe Asp Gly Phe Phe Leu Thr Ala Ser  
 275 280 285  
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 290 295 300  
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 305 310 315 320  
 Leu Glu Pro Thr Gly Gln Ser Gly Glu Ala Val Lys Glu Leu Tyr Ser  
 325 330 335  
 Gln Leu Gly Glu Lys Leu Glu Gln Leu Asp His Arg Lys Pro Ser Pro  
 340 345 350  
 Ala Gln Ala Ala Glu Thr Pro Ala Leu Glu Leu Pro Leu Pro Ser Val  
 355 360 365  
 Pro Ala Pro Ala Pro Leu  
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&lt;210&gt; 3443

&lt;211&gt; 2070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3443

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 60  
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 120  
 gcatacaaat taaacccgaa gttttgttca ctctcatttc aagctacaaa atgtaagctt  
 180  
 gcaggcttgg aagtcctaag cgatgaccct gatctagtga aggtgggtga atctttaact  
 240  
 tgtggaaaga tctttgcagt ggaaataact gacaaagctg acattccact tgttgttctg  
 300  
 tacgatacct caggagaaga tgatatcaat atcaatgcca cctgcttgaa ggctatatgt  
 360  
 gacaagtcac tagagggttca cctgcaggtt gacgccatgt acacaaatgt caaaataact  
 420  
 aatatttgct ctgatgggac actctactgc caggtgcctt gtaaggtct gaacaagctc  
 480  
 agtgaccttc tacgtaagat agaggactac ttccattgca agcacatgac ctctgagtgc  
 540  
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cgagtagaga tcacaaatgt tcacagcagc cgggctcttg atgttcagtt cctggactct  
660  
ggcactgtga catctgtaaa agtgtcagag ctcagggaaa ttccacctcg gtttctacaa  
720  
gaaatgattg caataccacc tcaggccatt aagtgtctgt tagcagatct tccacaatct  
780  
attggcatgt ggacaccaga tgcagtgtct tggttaagag attctgtttt gaattgctcg  
840  
gactgtagca ttaaggttac aaaagtggat gaaaccagag ggatcgca ca tgtttattta  
900  
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960  
gacttgtgga agcatcagaa ggatgtgttt ttgagtcca tatccagtgg agctgactct  
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cccaacagca aaaatggcaa catgcccatt tggggaaca ctggagagaa tttcagaaag  
1080  
aacctcacag atgtcatcaa aaagtccatg gtggaccata cgagcgcttt ctccacagag  
1140  
gaactgccac ctctgtcca cttatcaaag ccaggggaac acatggatgt gtatgtgcct  
1200  
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1260  
gttctgatgg aagagatgat tctatattac agcgtgtctg aagagcgcca catagcagtg  
1320  
gagaaagacc aagtgtatgc tgcaaaagtg gaaaataagt ggcacagggt gcttttaaaa  
1380  
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1440  
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1560  
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1620  
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1680  
gatacctgga ttcattgatt tatgtcagag tatctgatag agctttcaaa agttaattaa  
1740  
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1800  
ggcttaaaaa aaatcttaac tctgctacat ggctctgact gctgtggggg attgaaaaga  
1860  
atatgcttat gtttgatgaa agatatttaa caagttttgt tttacagag ttgacttttc  
1920  
aaagaaaatt gtacttgaat tattactata atattagaat aaaaatgttt atcaatataa  
1980  
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
2040  
aaaaaaaaaa aaaaaaaaaa aaaaaagggg  
2070

&lt;210&gt; 3444

&lt;211&gt; 579

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3444

```

Leu Ala Val Asn Ala Glu Glu Asp Ala Trp Leu Arg Ala Gln Val Ile
 1           5           10           15
Ser Thr Glu Glu Asn Lys Ile Lys Val Cys Tyr Val Asp Tyr Gly Phe
      20           25           30
Ser Glu Asn Val Glu Lys Ser Lys Ala Tyr Lys Leu Asn Pro Lys Phe
      35           40           45
Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
      50           55           60
Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
65           70           75           80
Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
      85           90           95
Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
      100          105          110
Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
      115          120          125
Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
      130          135          140
Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
145          150          155          160
Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
      165          170          175
Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
      180          185          190
Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
      195          200          205
Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
      210          215          220
Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
225          230          235          240
Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
      245          250          255
Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
      260          265          270
Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
      275          280          285
Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
      290          295          300
Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
305          310          315          320
Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
      325          330          335
Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
      340          345          350
Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
      355          360          365
Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Glu Leu Pro Pro
      370          375          380
Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
385          390          395          400
Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

```

405 410 415  
 His Lys Leu Glu Val Leu Met Glu Glu Met Ile Leu Tyr Tyr Ser Val  
 420 425 430  
 Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala  
 435 440 445  
 Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr  
 450 455 460  
 Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu  
 465 470 475 480  
 Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu  
 485 490 495  
 Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln  
 500 505 510  
 Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys  
 515 520 525  
 Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp  
 530 535 540  
 Asp Arg Lys Val Val Val Tyr Leu Val Asp Thr Ser Leu Pro Asp Thr  
 545 550 555 560  
 Asp Thr Trp Ile His Asp Phe Met Ser Glu Tyr Leu Ile Glu Leu Ser  
 565 570 575  
 Lys Val Asn

&lt;210&gt; 3445

&lt;211&gt; 2086

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3445

nnacgcgtgg cggcagaggg tatccaaggc cggacctggc gcgcaggcgc tgacccgacc  
 60  
 tggcagtggc ctggccgcgg ccttggctga gaggccttaa ccccgccggg cggcgcgcgc  
 120  
 cctgcatgag agttgggccc cgggcggggg tggagcctac tcggggcgac tgcgatggac  
 180  
 gccttagaag gagagagctt tgcgctgtct ttctcctccg cctctgatgc agaatttgat  
 240  
 gctgtggttg gatatttaga ggacattatc atggatgacg agttccagtt attacagaga  
 300  
 aatttcattg acaagtacta cctggagttt gaagacacag aagagaataa actcatctac  
 360  
 acacctatct ttaatgaata catttctttg gtagaaaaat acattgaaga acagctgctg  
 420  
 cagcggattc ctgagttcaa catggcagcc ttcaccacaa cattacacca tctgttccgt  
 480  
 ttgaggcacc ataaggatga agtggctggg gacatattcg acatgctgct caccttcaca  
 540  
 gattttctgg cttttaaaga aatgtttttg gactacagag cagaaaaaga aggccgagga  
 600  
 ctggacttaa gcagtggctt agtggtgact tcattgtgca aatcatcttc tctgccagct  
 660  
 tccagaaca atctgcggca ctaggtccta cctccagcca atgaatggga tcattctgga  
 720

tgtcaccagc ccaataggct cagctcatga tgacagaaca catcttggaa agactgactc  
780  
tgttatgtaa ctcttcattt atgttaagta ttaataggtc aaaacaaaaa tgacctaac  
840  
ctctggacc tatttatcct gaaacacctt cttgtattca ttaaccatag tactcctccc  
900  
cacctcaagt agacacctct ctcaggagct tctgagtcag acgcctctgg agcgagccct  
960  
atgttaggca ctccacctgg ggggcccttc cccagcatac ctgctgggtg gtaagtgtgg  
1020  
actaaccgcg cgccaccacc ctctgttcca gcaggctctg catgaatctt tgtgcacttg  
1080  
cacctctttt tcacatgggc cacagtttca gtacttcagc ctcagtgggg ttctgatgt  
1140  
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1200  
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1260  
gtactccta gtcttaacat ttgcagtcct tgtgtcactg tcttctggtc ctgatgtagt  
1320  
ccactggtt ctagaagtct cttttaagca ttatttttga aaaaaaaaaat atttttatag  
1380  
atgaatactc aggctaacct agtggatgtg atcttggaaac ttccatgatt atccacttaa  
1440  
agatcaaagt attatatgct gtgtgctttt taggtgtttg ttagtactgt gaaggcaaaa  
1500  
atgctttcta cattgacatt cattcctatt ttactgggca cctatgaatg tatgctgtgt  
1560  
gctagaaata gactaaaaca tttcctata gcatgttagt gtgtttgcat gtttgctgaa  
1620  
aatcctttgt gtataaacca gtttgtaagg ttctctgggt taggtaggga ctctgcagtt  
1680  
tcttctgtc aaaatctctc ctaccaagat ggtgttccac tgtccagccc agcatgagta  
1740  
gcaggtagag cacagcttta ctggctgttt gtatgctttg gtttagtgca atgtgtggt  
1800  
gattacttat cagaaaacat atatgtcatc tctagaacga agaaaaagca tagtagttca  
1860  
attcccagtg tgtccctttg atttttttt tttaatagta aaaataagaa tctgtactga  
1920  
cttttcactt ggccattctg gttttaagg acaagctaca agctctgtgt ttctgtactg  
1980  
atgtgtcact tattaataac tttgtacca tgagtaaac ttcaggtgtt tcgcaagaac  
2040  
caccattctc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa  
2086

&lt;210&gt; 3446

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3446

Met Asp Ala Leu Glu Gly Glu Ser Phe Ala Leu Ser Phe Ser Ser Ala



1	5	10	15
Ser Asp Ala Glu Phe Asp Ala Val Val Gly Tyr Leu Glu Asp Ile Ile			
20	25	30	
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr			
35	40	45	
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro			
50	55	60	
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln			
65	70	75	80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr			
85	90	95	
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly			
100	105	110	
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys			
115	120	125	
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp			
130	135	140	
Leu Ser Ser Gly Leu Val Val Thr Ser Leu Cys Lys Ser Ser Ser Leu			
145	150	155	160
Pro Ala Ser Gln Asn Asn Leu Arg His			
165			

&lt;210&gt; 3447

&lt;211&gt; 936

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3447

acgcgtgaag ggtttgcggg gaagatggag tatcccgcg cggccacggt gcaggccgcg  
60  
gacggcggag cggccggggc ttacagcagc tcggagttgc tggagggcca ggagccggac  
120  
gggggtgcgt ttgaccgcga gagggcgcg cgctgtggg aagccgtgtc cgggtgccag  
180  
ccggtgggta gagaggaagt ggagcacatg atccagaaga accaatgtct cttcaccaac  
240  
acccagtgtg aggtttgctg cgccttgctt atttctgagt ccagaagct ggcacattac  
300  
cagagcaaaa aacatgccaa caaagtgaag agatacctag caatccatgg aatggagaca  
360  
ttaaaggggg aaacgaagaa gctagactca gatcagaaga gcagcagaag caaagacaag  
420  
aaccagtgtc gcccacatctg taacatgacc ttttcctccc ctgtcgtggc ccagtcgcac  
480  
tacctgggga agaccacgc aaagaactta aagctgaagc agcagtccac taaggtggaa  
540  
gccttgacc agaatagaga gatgatagac ccagacaagt tctgcagcct ctgccatgca  
600  
actttcaacg accctgtcat ggctcaacaa cattatgtgg gcaagaaaca cagaaaacag  
660  
gagaccaagc taaaactaat ggcacgctat gggcggctgg cggaccctgc tgtcactgac  
720  
ttccagctg gaaagggcta cccctgcaaa acatgtaaga tagtgctgaa ctccatagaa  
780

cagtaccaag ctcatgtcag cggcttcaaa cacaagaacc agtcaccaaa aacagtggca  
 840  
 tcatccctgg gccagattcc aatgcaaagg caacccattc agaaagactc aaccaccttg  
 900  
 gaagactaga ggtgattctg cccagcatcc catatt  
 936

<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

Thr	Arg	Glu	Gly	Phe	Ala	Gly	Lys	Met	Glu	Tyr	Pro	Ala	Pro	Ala	Thr
1				5					10					15	
Val	Gln	Ala	Ala	Asp	Gly	Gly	Ala	Ala	Gly	Pro	Tyr	Ser	Ser	Ser	Glu
			20					25					30		
Leu	Leu	Glu	Gly	Gln	Glu	Pro	Asp	Gly	Val	Arg	Phe	Asp	Arg	Glu	Arg
			35				40					45			
Ala	Arg	Arg	Leu	Trp	Glu	Ala	Val	Ser	Gly	Ala	Gln	Pro	Val	Gly	Arg
			50			55					60				
Glu	Glu	Val	Glu	His	Met	Ile	Gln	Lys	Asn	Gln	Cys	Leu	Phe	Thr	Asn
65					70					75					80
Thr	Gln	Cys	Lys	Val	Cys	Cys	Ala	Leu	Leu	Ile	Ser	Glu	Ser	Gln	Lys
				85					90					95	
Leu	Ala	His	Tyr	Gln	Ser	Lys	Lys	His	Ala	Asn	Lys	Val	Lys	Arg	Tyr
			100					105					110		
Leu	Ala	Ile	His	Gly	Met	Glu	Thr	Leu	Lys	Gly	Glu	Thr	Lys	Lys	Leu
			115				120					125			
Asp	Ser	Asp	Gln	Lys	Ser	Ser	Arg	Ser	Lys	Asp	Lys	Asn	Gln	Cys	Cys
			130			135					140				
Pro	Ile	Cys	Asn	Met	Thr	Phe	Ser	Ser	Pro	Val	Val	Ala	Gln	Ser	His
145					150					155					160
Tyr	Leu	Gly	Lys	Thr	His	Ala	Lys	Asn	Leu	Lys	Leu	Lys	Gln	Gln	Ser
				165					170					175	
Thr	Lys	Val	Glu	Ala	Leu	His	Gln	Asn	Arg	Glu	Met	Ile	Asp	Pro	Asp
			180					185					190		
Lys	Phe	Cys	Ser	Leu	Cys	His	Ala	Thr	Phe	Asn	Asp	Pro	Val	Met	Ala
			195				200					205			
Gln	Gln	His	Tyr	Val	Gly	Lys	Lys	His	Arg	Lys	Gln	Glu	Thr	Lys	Leu
			210			215					220				
Lys	Leu	Met	Ala	Arg	Tyr	Gly	Arg	Leu	Ala	Asp	Pro	Ala	Val	Thr	Asp
225					230					235					240
Phe	Pro	Ala	Gly	Lys	Gly	Tyr	Pro	Cys	Lys	Thr	Cys	Lys	Ile	Val	Leu
				245					250					255	
Asn	Ser	Ile	Glu	Gln	Tyr	Gln	Ala	His	Val	Ser	Gly	Phe	Lys	His	Lys
			260					265					270		
Asn	Gln	Ser	Pro	Lys	Thr	Val	Ala	Ser	Ser	Leu	Gly	Gln	Ile	Pro	Met
			275				280					285			
Gln	Arg	Gln	Pro	Ile	Gln	Lys	Asp	Ser	Thr	Thr	Leu	Glu	Asp		
			290			295					300				

<210> 3449

<211> 877

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3449

```

ntgatcttca gcaaccatca ccaccggcta cagctgaagg cagctccggc ctctccaat
60
ccccccggcg ccccggtctt gccgctgcac aattcctccg tgactgccaa ctcccagtc
120
ccggcccttc tggccggcac caaccccggt gctgtcgtcg cggatggagg cagttgcccc
180
gcacactacc cgggtgcacga gtgctgtctt aaggggggat tgaggagact ctctctctc
240
atccgcacgc acaatatcgg gcagaaagat aatcacggaa atactccttt acaccttgct
300
gtgatgttag gaaataaaga atgtgcccat ttacttttgg ctcaaatgc tccagtcaag
360
gtgaaaaatg ctcagggatg gagccctctg gcggaagcca tcagctatgg agataggcag
420
atgattacag ctcttttgag gaagcttaag cagcaatcca gggaaagtgt tgaagaaaaa
480
cgacctgat tattaagaag cctgaaagag ctaggtgact tttatctaga acttcaactg
540
gattttcaaa gctgggtgcc ttacttttcc cgaattctgc cttccgatgc atgtaaaata
600
tacaacaag gtatcaatat caggcttgac acaactctca tagactttac tgacatgaag
660
tgccaacgag gggatctaag cttcattttc aatgggggat cggcgccctc tgaatctttt
720
gtagtattag acaatgaaca aaaagtttat cagcgaatac atcatgaggc tcacatccca
780
ggaatcagag atggaaacag aagaagaggt ggatatttta atgagcagtg atatttactc
840
tgcaacttta tcaacaaaat caatttcttt cagcggt
877

```

&lt;210&gt; 3450

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3450

```

Xaa Ile Phe Ser Asn His His His Arg Leu Gln Leu Lys Ala Ala Pro
1           5           10           15
Ala Ser Ser Asn Pro Pro Gly Ala Pro Ala Leu Pro Leu His Asn Ser
20           25           30
Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
35           40           45
Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
50           55           60
Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
65           70           75           80
Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
85           90           95
Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

```

```

      100      105      110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
      115      120      125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130      135      140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145      150      155      160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165      170      175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180      185      190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195      200      205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210      215      220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225      230      235      240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
      245      250      255
Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
      260      265      270
Phe Asn Glu Gln
      275

```

&lt;210&gt; 3451

&lt;211&gt; 595

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3451

```

gcatttttac agtttgtata tcccattttc aaggcttcag tggggctgct tagacaaaaa
60
cgatcttcag ggtttacaga atgggtcctc cttaaagctct ctgagccccg gccgtaggta
120
gaaatattca gtaagtagtg ccctgccatt gcagggttgg atgtccttct gccagcaaaa
180
cccagcatga acctctggct tgtggagatg tcttcagct ggaaacctga gtgagcgaag
240
ttgaactgtg agggcggcac aactgagaga agattctgcc tccgaacct ctgaatgaga
300
gtctgaagga tctgatcttg ggttgcttta cttagtcctt cgtggtattg gtgtgtgtca
360
atgctggagt ccctcagctc cttagctgaa aagagctgaa ggggccttgg aacctggggg
420
agctgcttac tttgcaaggt tttgcccagc tgctgctgcg tagctggatg ggactgtctc
480
tcattaactt cctctctggt gctatcttct gttgtgttgg tagctatgag cgctcccatc
540
cccctttcct cttttgcagg caggggaacc gcttccattt caactttggg gagag
595

```

&lt;210&gt; 3452

&lt;211&gt; 192

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3452

```

Met Glu Ala Val Pro Leu Pro Ala Lys Glu Glu Arg Gly Met Gly Ala
 1             5             10             15
Leu Ile Ala Thr Asn Thr Thr Glu Asn Ser Thr Arg Glu Glu Val Asn
      20             25             30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
      35             40             45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
      50             55             60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65             70             75             80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
      85             90             95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
      100            105            110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
      115            120            125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
      130            135            140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145            150            155            160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
      165            170            175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
      180            185            190

```

<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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nnacgcgtga aggggtcccgg ccgcgggggt ggcggggtga ggggagaaaa gatggcggcg
60
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120
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<210> 3454

<211> 159

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3454

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 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu  
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 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys  
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 Phe Arg Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu  
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&lt;210&gt; 3455

&lt;211&gt; 4886

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3455

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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

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		20					25					30			
Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro
		35					40					45			
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met
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Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr
65					70					75				80	
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg
			85						90					95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly
			100					105					110		
Val	Ile	Phe	Pro	Gln											

115

&lt;210&gt; 3457

&lt;211&gt; 646

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3457

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&lt;210&gt; 3458

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3458

Thr	Arg	Asp	Phe	Val	Ser	Met	Ser	Arg	Cys	Pro	Cys	Ala	Cys	Val	Cys
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Arg	Cys	Val	Xaa	Val	Pro	Gly	Cys	Val	Cys	Ala	Cys	Val	Cys	Val	Asp
		20					25						30		
Ile	Cys	Ala	Cys	Leu	Phe	Thr	His	Arg	Trp	Glu	Cys	Arg	Val	Cys	Ile
		35				40					45				
Leu	Cys	Xaa	Cys	Thr	Cys	Thr	Gln	Ala	Xaa	Ala	Gly	Lys			
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&lt;210&gt; 3459

&lt;211&gt; 592

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3459

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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
		35					40					45			
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
	50					55				60					
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65					70				75					80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85					90					95		
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
			100					105					110		
Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
		20						25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
		35					40					45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
	50					55					60				
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
65					70					75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
				85					90					95	
Val	Ile	Thr	Val	His											
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<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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&lt;210&gt; 3464

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3464

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Leu	Glu	Asp	Pro	Ala	Val	Pro	Arg	Leu	Thr	Ala	Ala	Leu	Pro	Ala	Ala
			20					25					30		
Glu	Leu	Pro	Glu	Arg	Arg	Arg	Arg	Gln	Gln	Arg	Gln	Gly	Lys	His	His

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 Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met Ala  
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 Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg  
 65 70 75 80  
 Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met  
 85 90 95  
 Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly  
 100 105 110  
 Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val  
 115 120 125  
 Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu  
 130 135 140  
 Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met  
 145 150 155 160  
 Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu  
 165 170 175  
 Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu  
 180 185 190  
 Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala  
 195 200 205  
 Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile  
 210 215 220  
 Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu  
 225 230 235 240  
 Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu  
 245 250 255  
 Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys  
 260 265 270  
 Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala  
 275 280 285  
 Val Ala Asn Asn Arg Ile Ile Thr Leu Gln Glu Glu Met Glu Arg Val  
 290 295 300  
 Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys  
 305 310 315 320  
 Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His  
 325 330 335  
 Leu Lys Glu Glu Thr Gln Leu Arg Leu Asp Val Glu Lys Glu Leu Glu  
 340 345 350  
 Met Gln Ile Ser Met Arg Gln Glu Met Glu Leu Ala Met Lys Met Leu  
 355 360 365  
 Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln  
 370 375 380  
 Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu  
 385 390 395 400  
 Gln Ser Ser Asp Leu Gly Val Lys Gln Lys Ser Glu Leu Asn Ser Arg  
 405 410 415  
 Leu Glu Glu Lys Thr Asn Gln Met Ala Ala Thr Ile Lys Gln Leu Glu  
 420 425 430  
 Gln Arg

&lt;210&gt; 3465

&lt;211&gt; 2904

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3465

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60  
agccccagct tggccaagca gagctggggg ggcggtggcc ggcaccgcaa gctgacctgag  
120  
aactggacag acacgcggga gacgctgctg gaggggatgc tgttcagcct caagtacctg  
180  
ggcatgacgc tagtgagca gcccaagggt gaggagctgt cggccgccgc catcaagagg  
240  
atcgtggcta cagctaaggc cagtgggaag aagctgcaga aggtgactct gaaggtgtcg  
300  
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360  
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420  
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1320  
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1380  
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1440  
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1500

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1680  
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1740  
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1800  
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1860  
tgggatgatg tgtgaaacct gacacctaga tttatttgga aatattctat gaccacttta  
1920  
cagatgagga aactgaggcc tcaagcgtgg aggggtagag tgaagagtag aaccagggtc  
1980  
tgatgcaaaa gctgctttct tctctgcctc ctctcacgc aactcacacc tccttttctt  
2040  
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2100  
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2460  
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2580  
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2760  
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2820  
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2880  
aaaaaaaaa aaaaaaaaaa aaaa  
2904

&lt;210&gt; 3466

&lt;211&gt; 315

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 3466

```

Thr Arg Pro Pro Glu Arg Ala Met Asp Ala Leu Lys Ser Ala Gly Arg
 1           5           10           15
Ala Leu Ile Arg Ser Pro Ser Leu Ala Lys Gln Ser Trp Gly Gly Gly
          20           25           30
Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr
          35           40           45
Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
          50           55           60
Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ile Lys Arg
          65           70           75           80
Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
          85           90           95
Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
          100          105          110
Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
          115          120          125
Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His
          130          135          140
Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met
          145          150          155          160
Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
          165          170          175
Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
          180          185          190
Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
          195          200          205
Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
          210          215          220
Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
          225          230          235          240
Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
          245          250          255
Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
          260          265          270
Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
          275          280          285
His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
          290          295          300
Ser Gly Thr Glu Gln Asp Asp Leu Phe Ser Phe
          305          310          315

```

&lt;210&gt; 3467

&lt;211&gt; 638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3467

```

acgcgtgaag ggcacggagg tattcattgt attattcttt caacctttat gaatgtatca
60
acatttgcaa aataaaaaag ttgtggagga ggaagaaaaa caaaaaccag gatgcactga
120
ggtctgaggt gaaggtccta ggagcatcag ttctctgttg ggatcaaggt tgctgggaca
180

```

```
<210> 3468
<211> 88
<212> PRT
<213> Homo sapiens
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```
<210> 3469
<211> 1710
<212> DNA
<213> Homo sapiens
```

2638

cgctataacc gcctgaccgt gctggctggg gcaatgettg ccttgggact aatgacatgc  
420  
ttgtcagttt tgtttggtta tgccaccaca gtcaccccca gggctctatac atactatgtt  
480  
tcaactgtat tatttgccat ttttggcatt agaatgcttc gggaaggctt aaagatgagc  
540  
cctgatgagg gtcaagagga actggaagaa gttcaagctg aattaaagaa gaaagatgaa  
600  
gaatttcaac gaaccaaact tttaaatgga cggggagatg ttgaaacggg tacaagcata  
660  
acagtacctc agaaaaagtg gttgcatttt atttcaccca tttttgttca agctcttaca  
720  
ttaacattct tagcagaatg ggggtgatcg tctcaactaa ctacaattgt attggcagct  
780  
agagaggacc cctatgggtg agccgtgggt ggaactgtgg ggcactgcct gtgcacggga  
840  
ttggcagtaa ttggaggaag aatgatagca cagaaaatct ctgtcagaac tgtgacaatc  
900  
ataggaggca tcgttttttt ggcgttttga ttttctgcac tatttataag ccctgattct  
960  
ggttttttaac aagctgtttg ttcattctata tttagttaa aataggtagt attatctttc  
1020  
tgtacatagt gtacattaca actaaaagta atgggaaaca ctgtattttg tagcattgat  
1080  
ttgtaagttt gacccactta attattatgc ccaaaagata taatcattga ttttatttgt  
1140  
aaagattttt aaaaaggttt gactcctaag tgtgggtttt tcttctctcc aacataatta  
1200  
tgttaatatg gtcttcattt ttcttttggg gcagaaccgt tgtgcagtgg ggtctacat  
1260  
gcaattttct ttcagcactg accccttttt aaggaataca aattttctcc ttcactactt  
1320  
agggtgttta agatgtttac cttaaagttt ttcttgggga aagaatgaat taatttctat  
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1440  
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agaactgtct gccaggtcat tcttctcttt ttttttttaa ttgggtagga cacccaatat  
1560  
aaaaacagtc aatatttgac aatgtggaat taccaaatta aaagagaata ctatgaatgt  
1620  
attcatattt tttctatatt gaataaaca tgtaacatag ataacaatat aaataaaagt  
1680  
ggatatgacca gtgaaaaaaaa aaaaaaaaaa  
1710

&lt;210&gt; 3470

&lt;211&gt; 322

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3470

Ala Ala Ala Pro Gly Asn Gly Arg Ala Ser Ala Pro Arg Leu Leu Leu

```

      1           5           10           15
Leu Phe Leu Val Pro Leu Leu Trp Ala Pro Ala Ala Val Arg Ala Gly
      20           25           30
Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala
      35           40           45
Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
      50           55           60
Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
      65           70           75           80
Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
      85           90           95
Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
      100          105          110
Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
      115          120          125
Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
      130          135          140
Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
      145          150          155          160
Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
      165          170          175
Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln
      180          185          190
Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
      195          200          205
Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
      210          215          220
Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
      225          230          235          240
Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile
      245          250          255
Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr
      260          265          270
Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
      275          280          285
Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
      290          295          300
Val Phe Leu Ala Phe Ala Phe Ser Ala Leu Phe Ile Ser Pro Asp Ser
      305          310          315          320
Gly Phe

```

&lt;210&gt; 3471

&lt;211&gt; 2335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3471

```

ggcgcgctgg ccctggccga catgcgcttc accggcgggc gcaacatcgt ggtggccacg
60
gcggacggca gcagcgcgtc gcccgtcag ttctacaagg tgtgctgag cgtggtgagc
120
gagaagtgcc gtatcgacac ggagatcctg ccctccctgt tcatgcgctg caccaccgac
180

```

ctcaaccgca aggacaagtt ccccgccatc acccacctca agttcctggc cggggacatg  
240  
tcggagcagg tgcttttgtg cgcgtccagc cagaccagca gcatcgtgga gtgctggtcc  
300  
ctgcgcaagg agggactccc cgtgaacaac atcttccagc agatctcccc cgtggttggc  
360  
gacaaacagc ccacaattct caaatggcgg atcctatcgg ccaccaacga tctggaccgt  
420  
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540  
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 2220  
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 2280  
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 2335

<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

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Val	Val	Ala	Thr	Ala	Asp	Gly	Ser	Ser	Ala	Ser	Pro	Val	Gln	Phe	Tyr
			20					25					30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35					40					45			
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50					55					60				
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
65					70					75				80	
Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
				85					90					95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
			100					105					110		
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
	130					135					140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
145					150					155				160	
Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
				165					170					175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
		180					185					190			
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
	195						200					205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
	210					215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

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225          230          235          240
Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
          245          250          255
Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
          260          265          270
Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
          275          280          285
Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
          290          295          300
Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
305          310          315          320
Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
          325          330          335
Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
          340          345          350
Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
          355          360          365
Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
          370          375          380
Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
385          390          395          400
Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
          405          410          415
Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
          420          425          430
His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
          435          440          445
Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
          450          455          460
Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
465          470          475          480
Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
          485          490          495
Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
          500          505          510
Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
          515          520          525
Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
          530          535          540
Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
545          550          555          560
Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
          565          570          575
Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
          580          585          590
Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
          595          600          605
Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
          610          615          620
Arg Val Pro Leu Ser Tyr Pro
625          630

```

&lt;210&gt; 3473

&lt;211&gt; 1660

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3473

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120  
gcgccatgcc cgggccggac tgagtgcgcg cgggcgagaa tggcgtacat ccagttggaa  
180  
ccattaaacg agggttttct ttctagaatc tctggtctgc tgctgtgcag atggacctgc  
240  
cggcactgct gtcagaagtg ctacgagtcc agctgttgcc agtcaagtga ggatgaagtt  
300  
gaaattctgg gacctttccc tgctcagacc cctccctggc tgatggccag cgggagcagt  
360  
gacaaggatg gtgactctgt ccacacggcc agcgaagtcc cgctgacccc acggaccaat  
420  
tcccgggatg gaagacgctc gtcctcagac acatccaagt ctacatacag cctgacgcgg  
480  
aggatttcga gtcttgagtc aagacgtccc agctctccac tcatcgatat taaacccatc  
540  
gagtttggcg ttctcagcgc caagaaggag cccatccaac cttcggtgct cagacggacc  
600  
tataaccccg acgactatct caggaagtcc gaaccccacc tgtactccct cgactccaac  
660  
agcgacgatg tggactctct gacagacgag gagatcctgt ccaagtacca gctgggcatg  
720  
ctgcacttca gactcagta cgacctgctg cacaaccacc tcaccgtgcg cgtgatcgag  
780  
gccagggacc tgccacctcc catctcccac gatggctcgc gccaggacat ggcgcactcc  
840  
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900  
aaacgcaaga cccagaagcc cgtgtttgag gagcgctaca ccttcgagat ccccttctg  
960  
gaggcccaaga ggaggaccct gtcctgacc gtggtggatt ttgataagtt ctcccgccac  
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tgtgtcattg ggaaagtctt tgtgcctttg tgtgaagttg acctggtcaa gggcgggcac  
1080  
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1140  
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1200  
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1260  
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1320  
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1380  
tttacagttt tcggccacaa catgaagagc agcaatgact tcatcgggag gatcgtcatt  
1440  
ggccagtact cttcaggccc ctctgagacc aaccactgga ggcgcatgct caacacgcac  
1500



cgcacagccg tggagcagtg gcatagcctg aggtcccgag ctgagtgtga ccgcgtgtct  
 1560  
 cctgcctccc tggaggtgac ctgagggctg caggggaaggc agctttcatt tgtttaaaaa  
 1620  
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 1660

<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

Met	Ala	Tyr	Ile	Gln	Leu	Glu	Pro	Leu	Asn	Glu	Gly	Phe	Leu	Ser	Arg
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Ile	Ser	Gly	Leu	Leu	Leu	Cys	Arg	Trp	Thr	Cys	Arg	His	Cys	Cys	Gln
			20					25					30		
Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu
		35					40					45			
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser
	50					55					60				
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val
65					70					75				80	
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser
				85					90					95	
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu
			100					105					110		
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu
		115					120					125			
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu
	130					135					140				
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His
145					150					155				160	
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp
				165					170					175	
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr
			180					185					190		
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala
	195						200					205			
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met
	210					215						220			
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys
225					230					235				240	
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe
			245						250					255	
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg
			260					265					270		
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys
	275						280					285			
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys
	290					295						300			
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val
305					310					315				320	
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly

[illegible]

<210> 3475

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3475

acgcgtcttg agggtcgggt cttctgcacg cccgcccga agctgctctg gctggtgctg  
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cagcccttct tctactcact acggccgctc tgcgtccacc ccaaggccgt gaccgcgatg  
120  
gaggtgctca acacgctggt gcagctggcg gccgacctgg ccatctttgc cctttggggg  
180  
ctcaagcccg tgggtctacct gctggccagc tccttcctgg gcctgggcct gcaccccatc  
240  
tcggggcact tcgtggccga gcactacatg ttctcaagg gccacgagac ctactcctac  
300  
tatggggcctc tcaactggat caccttcaat gtgggctacc acgtggagca ccacgacttc  
360  
cccagcatcc cgggctacaa cctgccgctg gtgcggaaga tcgcgcccga gtactacgac  
420  
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480  
ctggggccct atgccagggt gaagcgggtg taca  
514

<210> 3476

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3476

Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu  
1 5 10 15  
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
                35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
                50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
                85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
                100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
                115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
                130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
                165                170

```

&lt;210&gt; 3477

&lt;211&gt; 356

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3477

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gcgcgcctcg gctgcctgcc cggcggtctc cgggtcctcg tccagaccgg ccaccggagc
60
ttgacctctt gcatcgaccc ttccatggga cttaatgaag agcagaaaga atttcaaaaa
120
gtggcctttg actttgtgc cggagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcggtt ttcttgtgt tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaagt tctctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctt agaaggcatc ctgatcatct tgtaca
356

```

&lt;210&gt; 3478

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3478

```

Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
1                5                10                15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
                20                25                30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
                35                40                45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
50                55                60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

```

65              70              75              80
Phe Leu Leu Phe Ile Lys Ser His Gly Arg Val Asp Ala Gly Gly Gln
              85              90              95
Ala Pro Val Ala Gly Leu Asp Glu Asp Pro Glu Thr Ala Gly Gln Ala
              100              105              110
Ala Glu Ala Arg
              115

```

&lt;210&gt; 3479

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3479

```

nctttccaac ccagcctgaa ggggaaagcc acctcggagg acaccctcaa tctaaggaga
60
taccctggct ctgacaggat catgctgcag aagtggcaga aaagggacat cagcaatttt
120
gagtattctca tgtacctcaa caccgctggct gggagaacct gcaatgacta catgcagtac
180
ccagtgttcc cctgggtcct cgcagactac acctcagaga cattgaactt ggcaaatccg
240
aagatatttcc gggatctttc aaagcccatg ggggctcaga ccaaggaaag gaagctgaaa
300
tttatccaga ggtttaaaga agttgagaaa actgaaggag acatgactgc ccagtgccac
360
tactacaccc actactcctc ggccatcctc gtggcctcct acctgggtccg gatgccaccc
420
ttcaccagg ccttctgcgc tctgcagggtg agctgctgcc actctctgta cacacacaca
480
cacacacaca cacacacata cgctgtatc acaagactaa gacctgtgct tgaacaaaga
540
caggatgcct ctgctaaaaa cttagtcatt agccagtgat tcccagttga cattggctcc
600
aggattctgg ctcaccagcc aaggcaggct gttcttctc agttacacct gcacatctgc
660
ccaacaaagt cttgcaaaat gattctaaaa aataagaaat gagacatgaa aaaaatgatt
720
taacataaat aagatttagt ggaaaaagaa aaagcaggaa acttggagac tagaaaggca
780
ggcgggtcaag gattaga
797

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&lt;210&gt; 3480

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3480

```

Xaa Phe Gln Pro Ser Leu Lys Gly Lys Ala Thr Ser Glu Asp Thr Leu
  1              5              10              15
Asn Leu Arg Arg Tyr Pro Gly Ser Asp Arg Ile Met Leu Gln Lys Trp
              20              25              30
Gln Lys Arg Asp Ile Ser Asn Phe Glu Tyr Leu Met Tyr Leu Asn Thr

```

35					40					45					
Ala	Ala	Gly	Arg	Thr	Cys	Asn	Asp	Tyr	Met	Gln	Tyr	Pro	Val	Phe	Pro
50					55					60					
Trp	Val	Leu	Ala	Asp	Tyr	Thr	Ser	Glu	Thr	Leu	Asn	Leu	Ala	Asn	Pro
65	70					75					80				
Lys	Ile	Phe	Arg	Asp	Leu	Ser	Lys	Pro	Met	Gly	Ala	Gln	Thr	Lys	Glu
85					90					95					
Arg	Lys	Leu	Lys	Phe	Ile	Gln	Arg	Phe	Lys	Glu	Val	Glu	Lys	Thr	Glu
100					105					110					
Gly	Asp	Met	Thr	Ala	Gln	Cys	His	Tyr	Tyr	Thr	His	Tyr	Ser	Ser	Ala
115					120					125					
Ile	Ile	Val	Ala	Ser	Tyr	Leu	Val	Arg	Met	Pro	Pro	Phe	Thr	Gln	Ala
130					135					140					
Phe	Cys	Ala	Leu	Gln	Val	Ser	Cys	Cys	His	Ser	Leu	Tyr	Thr	His	Thr
145	150					155					160				
His	Thr	His	Thr	His	Thr	Tyr	Ala	Cys	Ile	Thr	Arg	Leu	Arg	Pro	Val
165					170					175					
Leu	Glu	Gln	Arg	Gln	Asp	Ala	Ser	Ala	Lys	Asn	Leu	Val	Ile	Ser	Gln
180					185					190					

<210> 3481

<211> 1794

<212> DNA

<213> Homo sapiens

<400> 3481

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120	atgaggtcct	gaccagaggg	tcttctgcca	atgcctccaa	gtggtcacca
180	gcagaccctg	cggtgctggg	agccaccatg	gagagtaggt	gctacggctg
240	ttcacctctc	tcaagaagga	gtacggctgt	aagaattgtg	gcaggngctt
300	tgctaagct	tcagtgcagc	agtgcctcgg	actgggaaca	ccaacagaa
360	caatgccatg	aggtcctgac	cagaggggtc	tctgccaatg	cctccaagtg
420	cagaactata	agaagcgtgt	ggcagccttg	gaagccaagc	aaaagcccag
480	agccagggac	tgacacgaca	agaccagatg	attgctgagc	gcctagcacg
540	gagaacaagc	ccaagttagt	cccctcacag	gcagagatag	aggcacggct
600	aaggatgaac	gtcagggttc	catcccttcc	accagggaaa	tggaggcacg
660	ttgcagggca	gagttctacc	ttctcaaacc	cccagcccg	gcacatcaca
720	caggacccaa	gcccagcaga	cacaggatct	gctaacgcag	ctggcagctg
780	cgatgaaagc	tggaaaggag	gaggcccagc	tgccctcttc	cagaatgata
840					tcaaccaggg

tggcccaggg agcactaatt ccaagaggca ggccacttgg ttcttggaga aggagaagag  
 900  
 cagactgctg gctgaggcag cacttgagtt gcgggaggag aacacgaggc aggaacggat  
 960  
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccgaga gagtgaccct  
 1020  
 ccaggactat cgcctcccag acagtgatga cgacgaggat gaggagacag ccatccaaag  
 1080  
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc  
 1140  
 tgcagagcag gcttctcgac cctggacgca accccgcggg gcagagcctg agggccagga  
 1200  
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 1260  
 ggatgccacc ctacgctgcg ctggctgcga tggggacctc ttctgtgcc gctgcttccg  
 1320  
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 1380  
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 1560  
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 1620  
 gtgagaggca tgatggggag agaccagact gaatctacgg gtgagccctg taacctggct  
 1680  
 ctagggcaca ggccctccc ctggcactta gtgggtctaa taaagtatgt tgattcattg  
 1740  
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa  
 1794

&lt;210&gt; 3482

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3482

Met Pro Pro Ser Gly His His Leu Ser Ser Ala Asp Pro Ala Val Leu  
 1 5 10 15  
 Gly Ala Thr Met Glu Ser Arg Cys Tyr Gly Cys Ala Val Lys Phe Thr  
 20 25 30  
 Leu Phe Lys Lys Glu Tyr Gly Cys Lys Asn Cys Gly Arg Xaa Phe Cys  
 35 40 45  
 Ser Gly Cys Leu Ser Phe Ser Ala Ala Val Pro Arg Thr Gly Asn Thr  
 50 55 60  
 Gln Gln Lys Val Cys Lys Gln Cys His Glu Val Leu Thr Arg Gly Ser  
 65 70 75 80  
 Ser Ala Asn Ala Ser Lys Trp Ser Pro Pro Gln Asn Tyr Lys Lys Arg  
 85 90 95  
 Val Ala Ala Leu Glu Ala Lys Gln Lys Pro Ser Thr Ser Gln Ser Gln  
 100 105 110  
 Gly Leu Thr Arg Gln Asp Gln Met Ile Ala Glu Arg Leu Ala Arg Leu

```

      115              120              125
Arg  Gln  Glu  Asn  Lys  Pro  Lys  Leu  Val  Pro  Ser  Gln  Ala  Glu  Ile  Glu
      130              135              140
Ala  Arg  Leu  Ala  Ala  Leu  Lys  Asp  Glu  Arg  Gln  Gly  Ser  Ile  Pro  Ser
145              150              155              160
Thr  Gln  Glu  Met  Glu  Ala  Arg  Leu  Ala  Ala  Leu  Gln  Gly  Arg  Val  Leu
      165              170              175
Pro  Ser  Gln  Thr  Pro  Gln  Pro  Gly  Thr  Ser  His  Thr  Gly  His  Gln  Asp
      180              185              190
Pro  Ser  Pro  Ala  Asp  Thr  Gly  Ser  Ala  Asn  Ala  Ala  Gly  Ser
      195              200              205

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&lt;210&gt; 3483

&lt;211&gt; 477

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3483

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ncggccgcgg cgcggaacgg cgctcccgcc cccaccatgg gcaacagcgc gagccgcaac
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gacttcgagt gggctctacac cgaccagccg cacacgcagc ggcgcaagga gatactggcc
120
aagtaccggg ccatcaaggc cctgatgcgg ccagaccggc gcctcaagtg ggcggggctg
180
gtgctggtgc tgggtgcagat gctggcctgc tggctggtgc gggggtggc ctggcgctgg
240
ctgctgttct gggcctacgc ctttggtggc tgcgtgaacc actcgctgac gctggccatc
300
cacgacatct cgcacaacgc ggccttcggc acggggccgtg cggcacgcaa ccgctggctg
360
gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
420
gtggaccacc accgctacct gggcggcgac ggactggacg tggacgtgcc cacgcgt
477

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&lt;210&gt; 3484

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3484

```

Met  Gly  Asn  Ser  Ala  Ser  Arg  Asn  Asp  Phe  Glu  Trp  Val  Tyr  Thr  Asp
1      5      10      15
Gln  Pro  His  Thr  Gln  Arg  Arg  Lys  Glu  Ile  Leu  Ala  Lys  Tyr  Pro  Ala
20     25     30
Ile  Lys  Ala  Leu  Met  Arg  Pro  Asp  Pro  Arg  Leu  Lys  Trp  Ala  Gly  Leu
35     40     45
Val  Leu  Val  Leu  Val  Gln  Met  Leu  Ala  Cys  Trp  Leu  Val  Arg  Gly  Leu
50     55     60
Ala  Trp  Arg  Trp  Leu  Leu  Phe  Trp  Ala  Tyr  Ala  Phe  Gly  Gly  Cys  Val
65     70     75     80
Asn  His  Ser  Leu  Thr  Leu  Ala  Ile  His  Asp  Ile  Ser  His  Asn  Ala  Ala
85     90     95
Phe  Gly  Thr  Gly  Arg  Ala  Ala  Arg  Asn  Arg  Trp  Leu  Ala  Val  Phe  Ala

```

			100					105					110				
Asn	Leu	Pro	Val	Gly	Val	Pro	Tyr	Ala	Ala	Ser	Phe	Lys	Lys	Tyr	His		
			115					120					125				
Val	Asp	His	His	Arg	Tyr	Leu	Gly	Gly	Asp	Gly	Leu	Asp	Val	Asp	Val		
			130				135					140					
Pro	Thr	Arg															
145																	

&lt;210&gt; 3485

&lt;211&gt; 812

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3485

tattttattta tagtcacaaa aactgttcag gaagaaatgt tatgaaaaga acattttttac  
60  
tgcattgctta aaacatttta ttttctatta tacagttaaa catttgcttg aattcagtga  
120  
gtctaaaaaa tcttattggt ctcagggttag cagttagttg agcagagtcc attggtgaag  
180  
caatctagtt attggcaaatt tctaacacat ggtaagggtgt gggggaaagg atttaaaaata  
240  
acagaaaaat gtaagtacaa acatacataa cagcaaaaata aaactcactt taacaaaaat  
300  
ttatttaaaa tgttaccctc atatttctct aatgaccaac ttgtttcagt tttatctccc  
360  
cctcatccgg ttatttttatg tctttttggg aggaagggag atgaggggtt ttgtttttta  
420  
acaaaatcac tggctttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt  
480  
ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt  
540  
atgagtcag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac  
600  
attaagagac aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact  
660  
ccttgtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcactacta  
720  
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa  
780  
ggaacacgca tgtccttaaa ctcaaaggat cc  
812

&lt;210&gt; 3486

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3486

Met	Arg	Val	Pro	Ser	Ala	Leu	Val	Thr	Leu	His	Met	Leu	Leu	Cys	Ser		
1				5				10						15			
Ile	Pro	Leu	Ser	Gly	Arg	Leu	Asp	Ser	Asp	Glu	Gln	Lys	Ile	Gln	Asn		
			20				25					30					
Asp	Ile	Ile	Asp	Ile	Leu	Leu	Thr	Phe	Thr	Gln	Gly	Val	Asn	Glu	Lys		



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<210> 3487
<211> 772
<212> DNA
<213> Homo sapiens
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<210> 3488
<211> 59
<212> PRT
<213> Homo sapiens
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2653

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                20                25                30
Leu Ala Asn Thr Val Lys Pro Arg Leu Ile Leu Ser Phe Leu Thr Pro
                35                40                45
Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
                50                55

```

<210> 3489  
 <211> 288  
 <212> DNA  
 <213> Homo sapiens

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<400> 3489
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60
agggagacca ggtctggccc ccaactctaa ggctcatctt agaggcgaga ttcaggccca
120
gccaggggtg ccccatgagg cctgggtggtt ggaggcagag ggtatccctt gcccaaattc
180
gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcgg tggctcacac
240
ctgtaatccc agcacttttg agagccccaa gacgacggat cacgagtc
288

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<210> 3490  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

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<400> 3490
Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
1                5                10                15
Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
                20                25                30
Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
                35                40                45
Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
                50                55                60
Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
65                70                75                80
Leu Glu Ser Pro Lys Thr Thr Asp His Glu
                85                90

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<210> 3491  
 <211> 568  
 <212> DNA  
 <213> Homo sapiens

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<400> 3491
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60
gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
120
aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
180

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tcgcttctgc tgacggccac agacgatggt gccatcaggg tctggaagaa ttttgctgat  
 240  
 ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg  
 300  
 acgcgaggag ctgggatggt ggtggactgg gagcaggaga ccggcctcct catgagctca  
 360  
 ggagacgtgc ggatcgctcg gatctgggac acagaccgtg agatgaaggt gcaggacatc  
 420  
 cctacggggc cagacagctg tgtgacgagt ctgtcctgtg attcccacg ctcactcatc  
 480  
 gtggctggcc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa  
 540  
 tgccgcgtca tgacgtaccg ggagcaca  
 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

Gly	Asn	Arg	Arg	Pro	Ser	Val	Val	Lys	Phe	His	Pro	Phe	Thr	Pro	Cys
1				5					10					15	
Ile	Ala	Val	Ala	Asp	Lys	Asp	Ser	Ile	Cys	Phe	Trp	Asp	Trp	Glu	Lys
			20					25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
	50					55				60					
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70					75					80
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85						90					95	
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
			100					105					110		
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
		115					120					125			
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
	130					135					140				
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150					155					160
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
			165						170					175	
Ala	Leu	Ser	Glu	Cys	Arg	Val	Met	Thr	Tyr	Arg	Glu	His			
			180						185						

<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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120  
aatcactctg aaagatcaga caatagatca gaagcttctg agcggttctga ccatgaggac  
180  
aatgaccctt cagatgtaga tcagcacagt ggatcagaag cccctaata tgaatgaagac  
240  
gaaggtcata gatcggatgg agggagccat cattcagaag cagaaggttc tgaaaaagca  
300  
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgatgaaaag  
360  
atacaaaatt ctgatgatga ggagagggca caaggatctg atgaagataa gctgcagaat  
420  
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat  
480  
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggta  
540  
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct  
600  
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac agggcccaga tgaagaacac  
660  
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat  
720  
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg  
780  
gatagtgaac ctgaggtgcc aaaagataat agtggaacca tggatttatt tggaggtgca  
840  
gatgatattc cttcagggag tgatggagaa gacaaaccac ctactccagg acagcctgtt  
900  
gatgaaaatg gattgcctca ggatcaacag gaagaggagc caattcctga gaccagaata  
960  
gaagtagaaa tacccaaagt aaacactgat ttaggaaacg acttatattt tgttaaactg  
1020  
cccaactttc tcagtgtaga gccagacct tttgatcctc agtattatga agatgaattt  
1080  
gaagatgaag aaatgctgga tgaagaagg agaacagggt taaaattaaa gtagaaaaat  
1140  
actataagat ggaggatacg ccgagatgaa gaaggaaatg aaattaaaga aagcaatgct  
1200  
cggatagtca agtggtcaga tggaagcatg tccctgcatt taggcaatga agtggttgat  
1260  
gtgtacaaag cccactgca gggcgaccac aatcatcttt ttataagaca aggtactggt  
1320  
ctacagggac aagcagtctt taaagcgaaa ctcaccttca gacctcactc tacggacagt  
1380  
gccacacata gaaagatgac tctgtcactt gcagataggt gttcaaagac acagaagatt  
1440  
agaatcttgc caatggctgg tcgtgatcct gaatgccaac gcacagaaat gattaagaaa  
1500  
gaagaagaac gtttgagggc ttccatacgt agggaaatctc agcagcgccg aatgagagag  
1560  
aaacagcacc agcgggggct gagcgccagt tacctggaac ctgatcgata cgatgaggag  
1620  
gaggaaggcg aggagtcctc cagcttggct gccattaaaa accgatataa agggggcatt  
1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa  
 1740  
 gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaaggtga accttcgga  
 1800  
 aagagaaaag cagaagatga tgataaagca aataaaaagc ataagaagta tgtgatcagc  
 1860  
 gatgaagagg aagaagatga tgattgaagt atgaaatatg aaaacatttt atatatttta  
 1920  
 ttgtacagtt ataaatatgt aaacatgagt tattttgatt gaaatgaatc gatttgcttt  
 1980  
 tgtgtaattt taattgtaat aaaacaattt aaaagcaagt ctctatgttt aagaaatcta  
 2040  
 cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggc  
 2100  
 aggtggatca caaggtcgtg gtggcgggtg cctgtagtcg cagctactcg ggaggctgag  
 2160  
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 2220  
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 2244

&lt;210&gt; 3494

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3494

Xaa	Gly	Gly	Tyr	Pro	Cys	Ser	Asp	Gln	Asp	Glu	Arg	Gly	Asp	Ser	Gly
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Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly
			20					25					30		
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn
		35					40					45			
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser
	50					55				60					
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp
65					70				75					80	
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	His	Ser	Glu	Ala	Glu	Gly
			85						90					95	
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys
			100					105					110		
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu
	115					120						125			
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp
	130					135					140				
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp
145				150					155					160	
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp
			165						170					175	
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Asp	Glu	Lys	Gln	Asn	Ser	Asp
			180					185					190		
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser
	195					200						205			
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp

210	215	220
Asp Glu Glu Glu Gln Asp His Lys Ser Glu Ser Ala Arg Gly Ser Asp		
225	230	235
Ser Glu Asp Glu Val Leu Arg Met Lys Arg Lys Asn Ala Ile Ala Ser		
245	250	255
Asp Ser Glu Ala Asp Ser Asp Thr Glu Val Pro Lys Asp Asn Ser Gly		
260	265	270
Thr Met Asp Leu Phe Gly Gly Ala Asp Asp Ile Ser Ser Gly Ser Asp		
275	280	285
Gly Glu Asp Lys Pro Pro Thr Pro Gly Gln Pro Val Asp Glu Asn Gly		
290	295	300
Leu Pro Gln Asp Gln Gln Glu Glu Glu Pro Ile Pro Glu Thr Arg Ile		
305	310	315
Glu Val Glu Ile Pro Lys Val Asn Thr Asp Leu Gly Asn Asp Leu Tyr		
325	330	335
Phe Val Lys Leu Pro Asn Phe Leu Ser Val Glu Pro Arg Pro Phe Asp		
340	345	350
Pro Gln Tyr Tyr Glu Asp Glu Phe Glu Asp Glu Glu Met Leu Asp Glu		
355	360	365
Glu Gly Arg Thr Arg Leu Lys Leu Lys Val Glu Asn Thr Ile Arg Trp		
370	375	380
Arg Ile Arg Arg Asp Glu Glu Gly Asn Glu Ile Lys Glu Ser Asn Ala		
385	390	395
Arg Ile Val Lys Trp Ser Asp Gly Ser Met Ser Leu His Leu Gly Asn		
405	410	415
Glu Val Phe Asp Val Tyr Lys Ala Pro Leu Gln Gly Asp His Asn His		
420	425	430
Leu Phe Ile Arg Gln Gly Thr Gly Leu Gln Gly Gln Ala Val Phe Lys		
435	440	445
Ala Lys Leu Thr Phe Arg Pro His Ser Thr Asp Ser Ala Thr His Arg		
450	455	460
Lys Met Thr Leu Ser Leu Ala Asp Arg Cys Ser Lys Thr Gln Lys Ile		
465	470	475
Arg Ile Leu Pro Met Ala Gly Arg Asp Pro Glu Cys Gln Arg Thr Glu		
485	490	495
Met Ile Lys Lys Glu Glu Glu Arg Leu Arg Ala Ser Ile Arg Arg Glu		
500	505	510
Ser Gln Gln Arg Arg Met Arg Glu Lys Gln His Gln Arg Gly Leu Ser		
515	520	525
Ala Ser Tyr Leu Glu Pro Asp Arg Tyr Asp Glu Glu Glu Gly Glu		
530	535	540
Glu Ser Ile Ser Leu Ala Ile Lys Asn Arg Tyr Lys Gly Gly Ile		
545	550	555
Arg Glu Glu Arg Ala Arg Ile Tyr Ser Ser Asp Ser Asp Glu Gly Ser		
565	570	575
Glu Glu Asp Lys Ala Gln Arg Leu Leu Lys Ala Lys Lys Leu Thr Ser		
580	585	590
Asp Glu Glu Gly Glu Pro Ser Gly Lys Arg Lys Ala Glu Asp Asp Asp		
595	600	605
Lys Ala Asn Lys Lys His Lys Lys Tyr Val Ile Ser Asp Glu Glu Glu		
610	615	620
Glu Asp Asp Asp		
625		

<210> 3495  
 <211> 1085  
 <212> DNA  
 <213> Homo sapiens

<400> 3495  
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 120  
 gcgtccccgg aggagatcaa gaagcctat cggaagctgg cgctcaagta ccaccggagc  
 180  
 aagaaccgg atgagggcga gaagtttaa ctcatatccc aggcataatga agtgctttca  
 240  
 gatccaaaga aaaggatgt ttatgaccaa ggcggagagc aggcaattaa agaaggaggc  
 300  
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtgg  
 360  
 ggacggatgg ctagagagag aagaggcaag aatgttgtag accagttatc tgtaactctt  
 420  
 gaagatctat ataatggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtag  
 480  
 aaatgtgaag gtgttggtgg gaagaaggga tcggtggaga agtgcccgct gtgcaagggg  
 540  
 cgggggatgc agatccacat ccagcagatc gggccgggca tggtagagca gatccagacc  
 600  
 gtgtgcatcg agtgcaaggg ccagggtgag cgcataacc ccaaggaccg ctgcgagagc  
 660  
 tgcagcgggg ccaaggtgat ccgtgagaag aagattatcg aggtacatgt tgaaaaaggt  
 720  
 atgaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag  
 780  
 cctggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggg  
 840  
 catgacttga tcatgaaaat gaaaattcag ctttctgaag ctctttgtgg cttcaagaag  
 900  
 acgataaaaa cattggacaa tcgaattctt gttattacat ccaaagcagg tgagggtgata  
 960  
 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccatctacaa agcaccctg  
 1020  
 gaaaaaggga ttctgatcat acagttttta gtaatctttc ctganaaaca ctggctttct  
 1080  
 ctgga  
 1085

<210> 3496  
 <211> 337  
 <212> PRT  
 <213> Homo sapiens

<400> 3496  
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 Ala Ser Pro Glu Glu Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys

Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile  
 20 25 30  
 35 40 45  
 Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr  
 50 55 60  
 Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro  
 65 70 75 80  
 Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly  
 85 90 95  
 Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu  
 100 105 110  
 Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala  
 115 120 125  
 Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys  
 130 135 140  
 Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln  
 145 150 155 160  
 Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr  
 165 170 175  
 Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp  
 180 185 190  
 Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile  
 195 200 205  
 Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu  
 210 215 220  
 Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val  
 225 230 235 240  
 Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly  
 245 250 255  
 His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys  
 260 265 270  
 Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile  
 275 280 285  
 Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val  
 290 295 300  
 Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile  
 305 310 315 320  
 Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser  
 325 330 335  
 Leu

&lt;210&gt; 3497

&lt;211&gt; 1638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3497

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 60  
 gtggcaactt tgttgtata attttatgca gcagataaag gtagacgttc ctcccaaag  
 120  
 tttttagtat atccttctaa aaagttttcc tgagaatttt tagtttgccc tctcaagttt  
 180



ccttatttta ccttttctta aattacctcc ctccctcctt agtgaaatga gccttccttc  
240  
agcatacgca acttatecctt attgctttttt tcatacccaa ttttttgttt tatctctttc  
300  
agccaactgg gtcctgaagt agctgaaatg cgaaaaaggc agcagtccca aaatgaagga  
360  
acacctgctg tgtctcaagc tcctggaaac cagaggccca acaacacctg ttgcttttgt  
420  
tggtgctggt gttgcagctg ctccctgcctc actgtgagga atgaagaaag aggggaaaat  
480  
gcgggaagac ccacacacac tacaaaaatg gagagtatcc aggtcctaga ggaatgccaa  
540  
aaccctactg cagaggaagt cttgtcctgg tctcaaaatt ttgacaagat gatgaaggcc  
600  
ccagcaggaa gaaacctttt cagagagttc ctccgaacag aatacagtga agagaaccta  
660  
cttttctggc ttgcttgatga agacttaaag aaggagcaga acaaaaaagt aattgaagaa  
720  
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggtcagtctt  
780  
gattctcgag ttagagaggt gatcaataga aatctgttgg atcccaatcc tcacatgtat  
840aacttcagat atatacttta atgcacagag attcttttcc aaggtttttg 900  
aactctcaaa tttataagtc atttggtgaa agtactgctg gctcttcttc tgaatcttaa  
960  
tgttcattta aaaacaatca ttttggaggg ctgagatggg aaataaaaagt agttaaataa  
1020  
catcagaaac tgagtctctg gagaactaca gtttagcatt cctcaggcta ctgtgaaaac  
1080  
acaaccgtta tggctcttgt ctccattttt atcaagggtt tccatgggta agtttggaga  
1140  
aaataccaca caaaacaatg aattgccaaa ttgtttggtt tattcaagac tcattctact  
1200  
tgcaagcaaa gtgtatttgt agtcctatga acagtctcct cgtgtatctc cagagactgc  
1260  
atgtgcaaag taaaatgctt catttgccac atagtgttg taatatttaa tccagtagca  
1320  
taacttatat ctgtatttaa ggacttttgt gcaatatggc cttaagaaat aattgccaaa  
1380  
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1560  
attcctctgg ttgttcactg ccaaaactgt ggcattttca ttacaggaga gtttactatg  
1620  
ctaaaagcaa aaaacaaa  
1638

&lt;210&gt; 3498

&lt;211&gt; 210

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3498

Met Arg Lys Arg Gln Gln Ser Gln Asn Glu Gly Thr Pro Ala Val Ser  
 1 5 10 15  
 Gln Ala Pro Gly Asn Gln Arg Pro Asn Asn Thr Cys Cys Phe Cys Trp  
 20 25 30  
 Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg  
 35 40 45  
 Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile  
 50 55 60  
 Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser  
 65 70 75 80  
 Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn  
 85 90 95  
 Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu  
 100 105 110  
 Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val  
 115 120 125  
 Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu  
 130 135 140  
 Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn  
 145 150 155 160  
 Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu  
 165 170 175  
 Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn  
 180 185 190  
 Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser  
 195 200 205  
 Glu Ser  
 210

&lt;210&gt; 3499

&lt;211&gt; 732

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3499

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 60  
 gtcctgattc gtcctcacag ccctgacctg gcagaagctt cactcctgcc ccagcccc  
 120  
 tgccacgggc ggcgtcccag cctggcacag aggtattgtg attcccanaa tggccaagnc  
 180  
 aacagactcn aacctcagga tngttctatt ttcgcccaga agcaataatt ttttttctct  
 240  
 tctggaaagc cctttcaaga tagtgatggt gatgtggggg cacggcggtc gccgggtaca  
 300  
 tggaggtacc ggggtcacag cagcgcaagc accgggaagc agggagcccc tggtcctgac  
 360  
 tgggcctgta tttttcatgt tggtcttcag ccctctcggc atggtccgga ggcgacggca  
 420  
 gtcctcagt cccctccac tctgctggt cccctgggac atggggcaca cgactcagga  
 480  
 ccaggccaga ggcaaaggca aggagcaggc agtacgccag caagagtccc tgtccacggg  
 540

agcccatctt cctgccgggc cctccgtccc gccggccgct cctcccgcgc cgtcccctaga  
 600  
 gcattctccc cgggccaagc ctctcccg ccanggtcgc gggcgatgca cagactcggg  
 660  
 gaaggaaaca gagcagggga aaaggtcttc cggaggacgg cagtgcagaa gaggaggggtg  
 720  
 gggggcggta cg  
 732

<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

Phe	Phe	Phe	Pro	Ser	Gly	Lys	Pro	Phe	Gln	Asp	Ser	Asp	Val	Asp	Val
1				5					10					15	
Gly	Ala	Arg	Arg	Ser	Pro	Gly	Thr	Trp	Arg	Tyr	Arg	Gly	His	Ser	Ser
			20					25					30		
Ala	Ser	Thr	Gly	Lys	Gln	Gly	Ala	Pro	Gly	Pro	Asp	Trp	Ala	Cys	Ile
			35				40					45			
Phe	His	Val	Val	Leu	Gln	Pro	Ser	Arg	His	Gly	Pro	Glu	Ala	Thr	Ala
	50				55					60					
Ala	Pro	Gln	Ser	Pro	Pro	Thr	Pro	Ala	Val	Pro	Pro	Gly	His	Gly	Ala
65					70					75				80	
His	Asp	Ser	Gly	Pro	Gly	Gln	Arg	Gln	Arg	Gln	Gly	Ala	Gly	Ser	Thr
			85					90						95	
Pro	Ala	Arg	Val	Pro	Val	His	Gly	Ser	Pro	Ser	Ser	Cys	Arg	Ala	Leu
			100					105					110		
Arg	Pro	Ala	Gly	Arg	Ser	Ser	Arg	Ala	Ala	Pro	Arg	Ala	Ser	Pro	Ala
			115				120					125			
Gly	Gln	Ala	Ser	Ser	Arg	Pro	Xaa	Ser	Gly	Ala	Met	His	Arg	Leu	Gly
	130					135					140				
Glu	Gly	Asn	Arg	Ala	Gly	Glu	Lys	Val	Phe	Arg	Arg	Thr	Ala	Val	Gln
145					150					155					160
Lys	Arg	Arg	Val	Gly	Gly	Gly	Thr								
					165										

<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120  
 ccccttatag agaagatgga tgcattcttg tccatgcttg ctaattgcga gaagctttca  
 180  
 ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata  
 240  
 ttatcttttag gaagaaacaa cataaagaac ttaaatggac tggaggcagt aggggacaca  
 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg  
 360  
 aagaaattga agattctcta catgtctaata aacctggtaa aagactgggc tgagtttg  
 420  
 aagctggcag aactgccatg cctcgaagac ctgggtgttg taggcaatcc cttggaagag  
 480  
 aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactgaaa  
 540  
 aagctggatg gtactccagt aattaaagg gatgaggaag aagacaacta atgccacgct  
 600  
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 660  
 gtctatttta aaaaaaaaaa aaaaaaaaaa a  
 691

&lt;210&gt; 3502

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3502

Xaa	Val	Ala	Thr	Ala	Gly	Met	Ala	Lys	Ala	Thr	Thr	Ile	Lys	Glu	Ala
1				5					10					15	
Leu	Ala	Arg	Trp	Glu	Glu	Lys	Thr	Gly	Gln	Arg	Pro	Ser	Glu	Ala	Lys
			20					25					30		
Glu	Ile	Lys	Leu	Tyr	Ala	Gln	Ile	Pro	Pro	Ile	Glu	Lys	Met	Asp	Ala
		35				40						45			
Ser	Leu	Ser	Met	Leu	Ala	Asn	Cys	Glu	Lys	Leu	Ser	Leu	Ser	Thr	Asn
	50					55				60					
Cys	Ile	Glu	Lys	Ile	Ala	Asn	Leu	Asn	Gly	Leu	Lys	Asn	Leu	Arg	Ile
65					70					75				80	
Leu	Ser	Leu	Gly	Arg	Asn	Asn	Ile	Lys	Asn	Leu	Asn	Gly	Leu	Glu	Ala
			85					90						95	
Val	Gly	Asp	Thr	Leu	Glu	Glu	Leu	Trp	Ile	Ser	Tyr	Asn	Phe	Ile	Glu
		100						105					110		
Lys	Leu	Lys	Gly	Ile	His	Ile	Met	Lys	Lys	Leu	Lys	Ile	Leu	Tyr	Met
		115					120					125			
Ser	Asn	Asn	Leu	Val	Lys	Asp	Trp	Ala	Glu	Phe	Val	Lys	Leu	Ala	Glu
	130					135					140				
Leu	Pro	Cys	Leu	Glu	Asp	Leu	Val	Phe	Val	Gly	Asn	Pro	Leu	Glu	Glu
145				150					155					160	
Lys	His	Ser	Ala	Glu	Asn	Asn	Trp	Ile	Glu	Glu	Ala	Thr	Lys	Arg	Val
			165					170						175	
Pro	Lys	Leu	Lys	Lys	Leu	Asp	Gly	Thr	Pro	Val	Ile	Lys	Gly	Asp	Glu
		180					185							190	
Glu	Glu	Asp	Asn												
		195													

&lt;210&gt; 3503

&lt;211&gt; 857

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3503

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 60  
 agtctcttca ctctcgtctc aaagccattt tgtgccgctg ccgctgcctc tacggccata  
 120  
 aatgcccaga gattagcggg gaagctccga gccagaaaac gggaacaaga cacaagaag  
 180  
 gagccggtgt ccacaaacgc tgttcagcgg agagtgaag aaatagtgcg gttcacacgg  
 240  
 cagctgcagc gagtccaccc caacgtgctt gctaaggcac tgaccgagg aattctccac  
 300  
 caggacaaga accttgtggg catcaataag ccctacggtc tccctgtgca tgggtggccct  
 360  
 ggggtccagc tctgcatcac tgatgtacta cctatcctgg caaagatgct tcatggccac  
 420  
 aaggcagagc ccttgcattt gtgccaccgg ctggacaagg aaaccacagg tgtaatgggtg  
 480  
 ttggcttggg acaaggacat ggcacatcaa gtccaagagt tgtttagaac ccgtcaggtg  
 540  
 gtgaagaagt actgggcat cactgtgcat gtcccatgc cctcagcagg agtcgtggac  
 600  
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 660  
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 720  
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 780  
 cagcccatca ctggaataaa acatcagctt cgagttcact tgtcttttgg attggattgt  
 840  
 ccaatccttg gtgatca  
 857

&lt;210&gt; 3504

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3504

Ala	Ala	Pro	Arg	Trp	Ser	Ala	Ser	Gly	Pro	Trp	Ile	Arg	Gly	Asn	Gly
1				5				10						15	
Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
		20						25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
		35				40						45			
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
		50				55						60			
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65					70					75				80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
				85				90						95	
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
		100						105					110		
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130	135	140	
Leu His Leu Cys His Arg	Leu Asp Lys Glu Thr Thr Gly Val Met Val		
145	150	155	160
Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg			
165	170	175	
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro			
180	185	190	
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly			
195	200	205	
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg			
210	215	220	
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln			
225	230	235	240
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala			
245	250	255	
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val			
260	265	270	
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp			
275	280	285	

&lt;210&gt; 3505

&lt;211&gt; 1612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3505

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ctcttcccgg tccggctcct ggttgccgct gccatgatgc tgctggcctg gcccttcgca  
120  
cttgctcgcatt ccctgggctc tgcggagaag gaaccggagc agccccgggc cctgtggagg  
180  
aagggttggtg acttcctgct gaaggccatc atgcgcacca tgtgggttcgc cggcggcttc  
240  
caccgggtgg ccgtgaaggg gcggcaggcg ctgcccaccg aggcggccat cctcacgctc  
300  
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360  
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420  
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480  
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720  
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780  
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840

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 900  
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 960  
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 1020  
 gccgcctccc tggaagtccc cgtttctgac ttgctggaag acatgttttc actgttcgac  
 1080  
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 1140  
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 1200  
 gacggcagcg tcggcgaagg tgacctgtcc tgcacctca agacggccct gggggtggca  
 1260  
 gagctcactg tgaccgacct attccgagcc attgaccaag aggagaaggg gaagatcaca  
 1320  
 ttcgtgact tccacaggtt tgcagaaatg taccctgcct tcgcagagga atacctgtac  
 1380  
 ccggatcaga cacatttcga aagctgtgca gagacctcac ctgcgccaat cccaaacggc  
 1440  
 ttctgtgccg atttcagccc ggaaaactca gacgctgggc ggaagcctgt tcgcaagaag  
 1500  
 ctggattagg acccaggggt gcggagagac gcggcccctc ccgctgggac atcaccgcca  
 1560  
 tgagcctctt tgcgagtgc ctctgggctc cgctcctcac tcctgctgta ca  
 1612

&lt;210&gt; 3506

&lt;211&gt; 502

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3506

Val	His	Glu	Leu	His	Leu	Ser	Ala	Leu	Gln	Lys	Ala	Gln	Val	Ala	Leu
1				5				10					15		
Met	Thr	Leu	Thr	Leu	Phe	Pro	Val	Arg	Leu	Leu	Val	Ala	Ala	Ala	Met
		20						25				30			
Met	Leu	Leu	Ala	Trp	Pro	Leu	Ala	Leu	Val	Ala	Ser	Leu	Gly	Ser	Ala
		35					40				45				
Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
	50				55						60				
Phe	Leu	Leu	Lys	Ala	Ile	Met	Arg	Thr	Met	Trp	Phe	Ala	Gly	Gly	Phe
65					70					75				80	
His	Arg	Val	Ala	Val	Lys	Gly	Arg	Gln	Ala	Leu	Pro	Thr	Glu	Ala	Ala
				85				90					95		
Ile	Leu	Thr	Leu	Ala	Pro	His	Ser	Ser	Tyr	Phe	Asp	Ala	Ile	Pro	Val
			100					105					110		
Thr	Met	Thr	Met	Ser	Ser	Ile	Val	Met	Lys	Thr	Glu	Ser	Arg	Asp	Ile
		115					120					125			
Pro	Ile	Trp	Gly	Thr	Leu	Ile	Gln	Tyr	Ile	Arg	Pro	Val	Phe	Val	Ser
		130				135					140				
Arg	Ser	Asp	Gln	Asp	Ser	Arg	Arg	Lys	Thr	Val	Glu	Glu	Ile	Lys	Arg
145					150					155				160	
Arg	Ala	Gln	Ser	Asn	Gly	Lys	Trp	Pro	Gln	Ile	Met	Ile	Phe	Pro	Glu

165 170 175  
 Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala  
 180 185 190  
 Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn  
 195 200 205  
 Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu  
 210 215 220  
 Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu  
 225 230 235 240  
 Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Glu Lys Arg Asn Pro Ala  
 245 250 255  
 Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val  
 260 265 270  
 Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu  
 275 280 285  
 Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg  
 290 295 300  
 Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu  
 305 310 315 320  
 Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly  
 325 330 335  
 Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu  
 340 345 350  
 Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp  
 355 360 365  
 Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg  
 370 375 380  
 Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu  
 385 390 395 400  
 Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala  
 405 410 415  
 Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp  
 420 425 430  
 Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala  
 435 440 445  
 Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr  
 450 455 460  
 His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly  
 465 470 475 480  
 Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro  
 485 490 495  
 Val Arg Lys Lys Leu Asp  
 500

&lt;210&gt; 3507

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3507

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ccaggagagg cttccactc actcttgggg gctgtgtcca cacagggact ctgcagcagc  
 120



cgagcccgt ccccgccatc cgtgctcaag tcccactcgc ttagtcatt gttgatgctg  
 180  
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 240  
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 360  
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 420  
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 480  
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 720  
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 ggcattctgtg gcttctgac ctttgagct gctgtggatc ctgac  
 885

&lt;210&gt; 3508

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3508

Leu	Arg	Thr	Leu	Leu	Asn	Leu	Leu	Phe	Leu	Pro	Asp	Gly	Leu	Cys	Gln
1				5					10					15	
Arg	Arg	Leu	Leu	Cys	Glu	Val	Ala	Ile	Ala	Val	Tyr	Thr	Phe	Gly	Thr
		20					25						30		
Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
	35					40					45				
Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
	50				55						60				
Asp	Arg	Lys	Phe	Thr	Ile	Ser	Leu	Thr	Ala	Phe	Leu	Phe	Ile	Leu	Pro
65				70					75					80	
Leu	Ser	Ile	Pro	Arg	Glu	Ile	Gly	Phe	Gln	Lys	Tyr	Ala	Ser	Phe	Leu
			85				90							95	
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
	100						105					110			
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
	115					120					125				
Ala	Ser	Trp	Met	Ala	Val	Phe	Asn	Ala	Met	Pro	Thr	Ile	Cys	Phe	Gly
	130				135					140					
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145				150					155					160	
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

165 170 175  
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 180 185 190  
 Gly Ala Ala Val Asp Pro Asp  
 195

<210> 3509  
 <211> 331  
 <212> DNA  
 <213> Homo sapiens

<400> 3509  
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 120  
 gccctctgcg acggctcccc gaccgagggg gagctcccca cgcacgagca ggtcttcctg  
 180  
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 240  
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 331

<210> 3510  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 3510  
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 20 25 30  
 Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr  
 35 40 45  
 Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro  
 50 55 60  
 Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg  
 65 70 75 80  
 Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp  
 85 90 95  
 Gly His Gln Arg Trp Gln Gly Val Pro His His Pro His Ala  
 100 105 110

<210> 3511  
 <211> 3319  
 <212> DNA  
 <213> Homo sapiens

<400> 3511  
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 60

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120  
gatagtgacc gtaattcatc agaagaagga actgcagaga aatccaagaa actgaggact  
180  
acaaatgagc attctcagac ttgtgattgg ggtaatctcc ttcaggacat tattctccaa  
240  
gtattttaa atttgcctct tcttgaccgg gctcatgctt cacaagtttg ccgcaactgg  
300  
aaccaggat ttcacatgcc tgacttggg agatgttttg aatttgaact gaatcagcca  
360  
gctacatctt atttgaaagc taccatcca gagctgatca aacagattat taaaagacat  
420  
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca  
480  
gcttggata tactatcgca acttgtgaat tgctctttaa aaacacttgg acttatttca  
540  
actgctcgac caagctttat ggattacca aagtctcact ttatctctgc actgacagt  
600  
gtgttcgtaa actccaaatc cctgtcttcg ctttaagatag atgatactcc agtagatgat  
660  
ccatctctca aagtactagt ggccaacaat agtgatacac tcaagctgtt gaaaatgagc  
720  
agctgtctc atgtctctcc agcaggatc ctttgtgtgg ctgatcagtg tcacggctta  
780  
agagaactag cctgaacta ccacttattg agtgatgagt tgttacttgc attgtcttct  
840  
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900  
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960  
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1020  
gaaatacctg ccacccatct gtactttggg agatcagtaa gcaaagatgt gcttggcgt  
1080  
gtgggaatga catgccctag actggttgaa ctagtagtgt gtgcaaatgg attacggcca  
1140  
cttgatgaag agttaattcg cattgcagaa cgttgcaaaa atttgtcagc tattggacta  
1200  
ggggaatgtg aagtctcatg tagtgcttt gttgagtttg tgaagatgtg tgggtggcgc  
1260  
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<210> 3512

<211> 462

<212> PRT

<213> Homo sapiens

<400> 3512

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&lt;210&gt; 3513

&lt;211&gt; 2103

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3513

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&lt;210&gt; 3514

&lt;211&gt; 484

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3514

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&lt;210&gt; 3515

&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3515

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<211> 547

<212> PRT

<213> Homo sapiens

<400> 3516

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&lt;210&gt; 3517

&lt;211&gt; 342

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3517

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 Ile Val Ala Ser Phe Val Leu Ala Gly Glu Thr Glu Ala Thr Ala Leu  
 35 40 45  
 Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala  
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 Ser Leu Ser Pro Ser Gly Leu Gly Ala Cys Asp Thr Ala Leu Arg Pro  
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&lt;210&gt; 3520

&lt;211&gt; 303

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3520

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      35          40          45
Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Pro Glu Glu Phe
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Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser
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Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro
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Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp
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Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr
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Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys
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Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu
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&lt;210&gt; 3521

&lt;211&gt; 638

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3521

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<212> PRT

<213> Homo sapiens

<400> 3522

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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3524

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3524

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<211> 1116

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3526

&lt;211&gt; 304

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3526

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Ser Glu Lys Lys Lys Asp Arg	Ile Asp Ala Phe Leu Arg	Glu Val Asn
165	170	175
Gln Arg Val Val Arg Val Pro	Ser Val Pro Glu Thr Glu	Leu Thr Asp
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195	200	205
Tyr Ala Val Lys Gly Cys Phe	Arg Phe Leu Pro Pro Ala	Gln Val Thr
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225	230	235
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245	250	255
Gly Leu Asn Gln Arg Tyr Phe	Arg Lys Arg Ala Leu Tyr	Leu Ala His
260	265	270
Leu Ala His His Leu Ala Gln	Asp Pro Leu Phe Gly Ser	Val Cys Phe
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&lt;210&gt; 3527

&lt;211&gt; 2838

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3527

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<210> 3528

<211> 281

<212> PRT

<213> Homo sapiens

<400> 3528

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&lt;210&gt; 3529

&lt;211&gt; 3026

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3529

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<400> 3530

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Thr	Thr	Ala	Trp	Arg	Pro	Ala	Thr	Leu	Pro	Pro	Arg	Ser	Pro	Ser	His
		20						25					30		
Cys	Xaa	Ser	Pro	Val	Ala	Gly	Val	Ala	His	Arg	Phe	His	Ser	Thr	Cys
	35						40					45			
Gly	Lys	Asn	Val	Thr	Leu	Glu	Asp	Gly	Thr	Arg	Ala	Val	Arg	Ala	
	50					55				60					
Ala	Gly	Tyr	Ala	His	Gly	Leu	Val	Phe	Ser	Thr	Lys	Glu	Leu	Arg	Ala
65					70					75				80	
Glu	Glu	Val	Phe	Glu	Val	Lys	Val	Glu	Glu	Leu	Asp	Glu	Lys	Trp	Ala
				85					90					95	
Gly	Ser	Leu	Arg	Leu	Gly	Leu	Thr	Thr	Leu	Ala	Pro	Gly	Glu	Met	Gly
			100					105					110		
Pro	Gly	Ala	Gly	Gly	Gly	Gly	Pro	Gly	Leu	Pro	Pro	Ser	Leu	Pro	Glu
	115						120					125			
Leu	Arg	Thr	Lys	Thr	Thr	Trp	Met	Val	Ser	Ser	Cys	Glu	Val	Arg	Arg
	130					135					140				
Asp	Gly	Gln	Leu	Gln	Arg	Met	Asn	Tyr	Gly	Arg	Asn	Leu	Glu	Arg	Leu
145					150					155				160	
Gly	Val	Lys	Trp	Leu	Ala	Pro	Gly	Thr	Gly	Glu	Gly	Leu	Gly	Val	Glu
				165					170					175	
Val	Ala	Gly	Arg	Gly	Gly	Leu	Asn	Ile	Val	Arg	Pro	Cys	Pro	Thr	Ser
			180				185						190		
Val	Leu	Gly	Gly	Glu	Pro	Cys	Gly	Cys	Ser	Ser	Gly	Gly	Arg		
	195						200					205			

<210> 3531

<211> 879

<212> DNA

<213> Homo sapiens

<400> 3531

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 120  
 aaaattatta aagtgaaggc tcagaagaag gcagatatgg tgaacgaaga cttgctgagt  
 180

gatggaacga gtgagaatga atctggattt tgggattcct tcaaattggg ctttacagga  
 240  
 cagaagactg aggaagtga gcaagataaa gatgacataa ttaatatattt ctccgttgca  
 300  
 tctgggtcatc tctacgaaag atttcttcgc ataatgatgc tatccgtgct gaagaatacc  
 360  
 aagactcctg tgaaattctg gttcttgaag aattacttgt cccccacatt taaggagttt  
 420  
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 480  
 cgggtggcttc atcaacaaac tgaaaaacag cgtatcatct ggggttacaa gatcctcttc  
 540  
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 600  
 gtacgaacag atctgaaaga gttaagagat ttcaatttgg atgggtgctcc ttatggttac  
 660  
 actcctttct gtgacagccg aagagaaatg gacggctaca gggtctggaa gtcagggtag  
 720  
 tgggccagtc atttagccgg gcgaaagtat catatcaggt actgaaaaga agcactccta  
 780  
 acactgttac ggggttttcc ttaaaattga ttttgtgtgg ttaaaattgt gaataggtaa  
 840  
 tacattggta tgggtgaaaa ataaaaatga taaaaaata  
 879

&lt;210&gt; 3532

&lt;211&gt; 254

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3532

Xaa Ile Leu Arg Leu Arg Lys Gly Arg Ser Glu Asp Ile Tyr Arg Ile  
 1 5 10 15  
 Tyr Ser His Asp Gly Thr Asp Ser Pro Pro Asp Ala Asp Glu Val Val  
 20 25 30  
 Ile Val Leu Asn Asn Phe Lys Ser Lys Ile Ile Lys Val Lys Val Gln  
 35 40 45  
 Lys Lys Ala Asp Met Val Asn Glu Asp Leu Leu Ser Asp Gly Thr Ser  
 50 55 60  
 Glu Asn Glu Ser Gly Phe Trp Asp Ser Phe Lys Trp Gly Phe Thr Gly  
 65 70 75 80  
 Gln Lys Thr Glu Glu Val Lys Gln Asp Lys Asp Asp Ile Ile Asn Ile  
 85 90 95  
 Phe Ser Val Ala Ser Gly His Leu Tyr Glu Arg Phe Leu Arg Ile Met  
 100 105 110  
 Met Leu Ser Val Leu Lys Asn Thr Lys Thr Pro Val Lys Phe Trp Phe  
 115 120 125  
 Leu Lys Asn Tyr Leu Ser Pro Thr Phe Lys Glu Phe Ile Pro Tyr Met  
 130 135 140  
 Ala Asn Glu Tyr Asn Phe Gln Tyr Glu Leu Val Gln Tyr Lys Trp Pro  
 145 150 155 160  
 Arg Trp Leu His Gln Gln Thr Glu Lys Gln Arg Ile Ile Trp Gly Tyr  
 165 170 175  
 Lys Ile Leu Phe Leu Asp Val Leu Phe Pro Leu Val Val Asp Lys Phe

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<210> 3533
<211> 1151
<212> DNA
<213> Homo sapiens
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<400> 3533
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120
atggacatga ccggtggctt gtcggtgaag gacccatccc agtcccagtc acgcctcccc
180
cagtggaagc accccaactc catggataac ttgccagtg ccgcttcccc cctggagcag
240
aaccctagca agcatggtgc tatccctgga ggtctaagca ttgggcctcc aggtaagtcc
300
tccattgatg actcctatgg ccggtacgat ttaatccaga acagtgagtc accagccagt
360
cctcccgtag ctgttcccca tagctgggtca cgtgccaaat ctgacagtga taaaatctca
420
aatggctcta gcatcaactg gccccagaa ttccatccgg gagttccatg gaaaggactg
480
cagaatattg accctgagaa tgaccctgac gtcactctg gcagtgtccc cactgggcct
540
accatcaaca ccaccatcca ggatgtcaac cgctacctcc tcaagagtgg agggtcctcc
600
ccgccatcat ctcagaatgc cacgctgcct tcttcgagtg cctggccact cagtgcctcc
660
ggctacagta gctctttcag cagcattgca tccgcaccta gtgttgagg taaactgtca
720
gacatcaaat cgacgtggtc ctctggccct acctcccaca cgcaagcttc tctgtctcat
780
gaactatgga aggtgcccag aaacagtgact gcacccacga ggccacctcc aggggttaacc
840
aatcccaagc cctcctccac ctgggggtgcc agccccctcg gctgggaccag ctcctactcc
900
tcgggttctg cctgggagcac cgacacctca ggaagaacca gcagctggct cgttcttcga
960
aacctcactc cccaggtgca atatggtgcc cctgcatcac tgagcatgat ccagggaggg
1020
ttcccgcttg gcccccaatg cagatgaggc tgtctggtgg ggcaggatag ttgggggttc
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1140

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1151

<210> 3534  
<211> 313  
<212> PRT  
<213> Homo sapiens

<400> 3534  
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20 25 30  
Met Asp Asn Leu Pro Ser Ala Ala Ser Pro Leu Glu Gln Asn Pro Ser  
35 40 45  
Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys  
50 55 60  
Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser  
65 70 75 80  
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg  
85 90 95  
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp  
100 105 110  
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile  
115 120 125  
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly  
130 135 140  
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys  
145 150 155 160  
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser  
165 170 175  
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser  
180 185 190  
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys  
195 200 205  
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser  
210 215 220  
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro  
225 230 235 240  
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser  
245 250 255  
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr  
260 265 270  
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr  
275 280 285  
Pro Gln Val Gln Tyr Gly Ala Pro Ala Ser Leu Ser Met Ile Gln Gly  
290 295 300  
Gly Phe Pro Leu Gly Pro Gln Cys Arg  
305 310

<210> 3535  
<211> 723  
<212> DNA  
<213> Homo sapiens

<400> 3535  
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 120  
 cggcagacct gctacagggt ctctctgctg gtgaccaccc accccacaac cactcaagaa  
 180  
 gcctcatcaa aacattgttg gagaaaactg ggtgcccacg gaggagaaac ggaatgcaag  
 240  
 gagattgcaa tctgtgcttt gaaccagatg cactattact aatagctgga ggaaattttg  
 300  
 aagatcagct tagagaagaa gtggtccaga gagtttctct tctccttctc tattacatta  
 360  
 ttcacatcagga agagatctgt tcttcaaagc tcaacatgag taataaagag tataaatttt  
 420  
 acctacacag cctactgagc ctcaggcagg atgaagattc ctctttcctt tcacagaatg  
 480  
 agacagaaga tatcttggtt ttcaccaggc agtactttga cacttctcaa agccagtgtg  
 540  
 tggaacacaa aacgctgcag aaaaaatctg gaatagtgag cagtgaagggt gctaatagaa  
 600  
 gtacgcttcc tcagtggca gccatgatca ttactttgtc cctccagggt gtttgcctgg  
 660  
 gacaaggaaa cttgccttcc ccagactact ttacagaata tattttcagt tccttgaatc  
 720  
 gta  
 723

<210> 3536

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3536

Met	Gln	Gly	Asp	Cys	Asn	Leu	Cys	Phe	Glu	Pro	Asp	Ala	Leu	Leu	Leu
1				5				10					15		
Ile	Ala	Gly	Gly	Asn	Phe	Glu	Asp	Gln	Leu	Arg	Glu	Glu	Val	Val	Gln
		20						25					30		
Arg	Val	Ser	Leu	Leu	Leu	Leu	Tyr	Ile	Ile	His	Gln	Glu	Glu	Ile	
		35					40				45				
Cys	Ser	Ser	Lys	Leu	Asn	Met	Ser	Asn	Lys	Glu	Tyr	Lys	Phe	Tyr	Leu
	50					55				60					
His	Ser	Leu	Leu	Ser	Leu	Arg	Gln	Asp	Glu	Asp	Ser	Ser	Phe	Leu	Ser
65					70				75					80	
Gln	Asn	Glu	Thr	Glu	Asp	Ile	Leu	Ala	Phe	Thr	Arg	Gln	Tyr	Phe	Asp
			85					90						95	
Thr	Ser	Gln	Ser	Gln	Cys	Met	Glu	Thr	Lys	Thr	Leu	Gln	Lys	Lys	Ser
		100					105					110			
Gly	Ile	Val	Ser	Ser	Glu	Gly	Ala	Asn	Glu	Ser	Thr	Leu	Pro	Gln	Leu
	115					120					125				
Ala	Ala	Met	Ile	Ile	Thr	Leu	Ser	Leu	Gln	Gly	Val	Cys	Leu	Gly	Gln
	130					135					140				
Gly	Asn	Leu	Pro	Ser	Pro	Asp	Tyr	Phe	Thr	Glu	Tyr	Ile	Phe	Ser	Ser

145  
Leu Asn Arg

150

155

160

<210> 3537  
<211> 714  
<212> DNA  
<213> Homo sapiens

<400> 3537  
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 120  
 cataaggcca agagtaagtg cgtgaatgca cttaagacaa agtcaggaca cgagcttcac  
 180  
 atgacaggcc ccgcgtgggc gaccagccag ccctggggac gggcacgcca cgccacacac  
 240  
 acactcacca ctgtacagcc tgggactccc attgcatatt cacaggcccc gccgggcagg  
 300  
 gcacctcaag gctgggggag gggcaggggc agggaggagc cgtggggtgt ccctgggtgg  
 360  
 gtggagaggg cagcatgtga gaggcaaatg tgcaccaaca ctgggcgtga gacgtgagca  
 420  
 gcctcaggtg tacggcatga gatgtgtgtg gttggggggt gtctgcgtga cccgggaggg  
 480  
 ggggtgtgtg gagatgagca cagcaggcat gcgtggcacg tgctcgtgtg gtggtcgcgt  
 540  
 gcctgaatcc aggggctacc ccctgtccgg ctgtggccct cggctctgca gggttggaag  
 600  
 aagggtcctt cagacgtgcc cctaccacagc aggcacagaa atgtttgcat aaggccagc  
 660  
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 714

<210> 3538  
<211> 154  
<212> PRT  
<213> Homo sapiens

<400> 3538  
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 1 5 10 15  
 Ser Trp Thr Leu Cys Lys His Phe Cys Ala Cys Trp Val Gly Ala Arg  
 20 25 30  
 Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly  
 35 40 45  
 Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Arg Ala Arg  
 50 55 60  
 Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly  
 65 70 75 80  
 His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg  
 85 90 95  
 Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met



	100		105		110										
Leu	Pro	Ser	Pro	Pro	Thr	Gln	Gly	His	Pro	Thr	Ala	Pro	Pro	Cys	Pro
	115						120					125			
Cys	Pro	Ser	Pro	Ser	Leu	Glu	Val	Pro	Cys	Pro	Ala	Gly	Pro	Val	Asn
	130					135					140				
Met	Gln	Trp	Glu	Ser	Gln	Ala	Val	Gln	Trp						
145					150										

&lt;210&gt; 3539

&lt;211&gt; 818

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3539

```

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60
ggcaatgggg gtgcctgtgg tcccagctgc tcgggaggct gaggcggaat tgcttgagcg
120
cgggggcgcg aggttgcagt gagecgagat cgcgcaggta cgctccagtc tgggcgacaa
180
gagcgaaact cgatatcaaa aaaaaaaaaa acgtcctgat cccagagcct cttcacgcgt
240
cccctaccac agcacttcag agaagcaggt ctttaatcag tgtgtctaga tgcagctgct
300
gactgtcacc cctacccgcg ctctctccca gtctgaggac ggccagtcac cccattgcc
360
cagaatcaga cgaccctcgg ttcttcaga gccaaagtgg gcaacttccc ctggcaagcc
420
ttcaccagta tccacggcgg tgggggcggg gccctgctgg gggacagatg gatactcact
480
gctgcccaca ccgtctaccc caaggacagt gtttctctca ggaagaacca gagtgtgaat
540
gtgttcttgg gccacacagc catagatgag atgctgaaac tggggaacca ccctgtccc
600
cgtgtcgttg tgcacccgga ctaccgtcag aatgagtccc ataactttag cggggacatc
660
gccctcctgg agctgcagca cagcatcccc ctgggcccc aacgtcctccc ggtctgtctg
720
cccgataatg agaccctcta ccgcagcggc ttgttgggct acgtcagtggt gtttggcatg
780
gagatgggct ggctaactac tgagctgaag tactcgag
818

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&lt;210&gt; 3540

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3540

Ser	Val	Cys	Leu	Asp	Ala	Ala	Ala	Asp	Cys	His	Pro	Tyr	Pro	Ala	Ser
1				5				10						15	
Leu	Pro	Val	Cys	Gly	Arg	Pro	Val	Thr	Pro	Ile	Ala	Gln	Asn	Gln	Thr
		20						25					30		
Thr	Leu	Gly	Ser	Ser	Arg	Ala	Lys	Leu	Gly	Asn	Phe	Pro	Trp	Gln	Ala

```

      35              40              45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
      50              55              60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
65              70              75              80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85              90              95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100              105              110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115              120              125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130              135              140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
145              150              155              160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
      165              170              175
Leu Lys Tyr Ser
      180

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&lt;210&gt; 3541

&lt;211&gt; 722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3541

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60
agttcccagg gtttgaagcc tgtaactgct gccgccgctc aagccctcca gagcattgct
120
acggctgctg cccttgctact actacctcca aatacgttct tgctggtagt ggcggcagca
180
ggaccaatta cctctttttt gctctccctc gagaagctcc agatggcgctc ttccgtgggc
240
aacgtggccg acagcacaga accaacgaaa cgtatgcttt cttccaagg gttagctgag
300
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360
ctctggagac aagagccaga caatactggt gtgcttttat tactttcatc tatacacttc
420
cagtgtcgaa ggctggacag atctgctcac tttagcactc tggcaattaa acagaacccc
480
cttctggcag aagcttattc gaatttgggg aatgtgtaca aggaaagagg gcagttgcag
540
gaggcaattg agcattatcg acatgcattg cgtctcaaac ctgatttcac cgatggttat
600
attaacgctg cagccgcctt ggtagcagcg ggtgacatgg aaggggcagt acaagcttac
660
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720
aa
722

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&lt;210&gt; 3542

<211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 3542

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 1           5           10           15
Arg Met Leu Ser Phe Gln Gly Leu Ala Glu Leu Ala His Arg Glu Tyr
      20           25           30
Gln Ala Gly Asp Phe Glu Ala Ala Glu Arg His Cys Met Gln Leu Trp
      35           40           45
Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile
      50           55           60
His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
      65           70           75           80
Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly
      85           90           95
Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
      100          105          110
Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
      115          120          125
Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln
      130          135          140
Ala Tyr Val Ser Ala Leu Gln Pro Gly
      145          150

```

<210> 3543  
 <211> 1206  
 <212> DNA  
 <213> Homo sapiens

<400> 3543

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cagctaataga aagtatttta tgaatgctgt ccttaagacc gagtaacagc attgtgttca
120
gtttggttgt tgctcaggat gtgtaatagt ttctcttcag ccataagcca cgcttggtag
180
atattaattg agtggagaga tcttcaccc cttccagtta tgcatttggt gtttgcgtc
240
tgatttggag cacttggag atcactgttt tgtgttctac gacccaattg agaggattat
300
gtggagctaa gttttaccaa tcaggatcat ccttccttgt gggtagcag gcagttataa
360
gattgcaaaa tgggtctccg gattcacttt gttgttgacc cacatgggtg gtgctgcatg
420
ggtttgattg tctttgtttg gttatacaat attgttttaa ttcccaaaat tgtcctcttt
480
cctcactatg aagaaggaca tattccaggc atattaataa taatattcta tggcatttcc
540
atattctgtc tgggtgcctt agtgagggcc tccataactg atccaggaag actccctgag
600
aaccccaaga tcccatgag agaaaggag ttctgggaat tatgtaacaa gtgtaatttg
660

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atgagaccaa agcgttccca tcaactgtagc cgctgcggcc actgtgtgag gagaatggat  
 720  
 catcactgtc catggattaa caattgtgtt ggtgaagata atcattggct ctttctgcag  
 780  
 ttgtgtttct aactgaact tcttacttgc tacgcactga tgttttcttt ctgccactat  
 840  
 tactattttc ttccactaaa aaagcgtaat ttggacctct ttgttttttag acatgaattg  
 900  
 gccataatga gactagcagc ctttatgggc attactatgt tagttggaat aactggactc  
 960  
 ttttacactc aactaattgg catcatcaca ccttgcagtc tcatcctact caagtgtggc  
 1020  
 tctgtatcca acaacagtct tggagatctc atgaagattt ctgaaacttt tgctctgagg  
 1080  
 ataccttctt ttgtggttat gtgccctgaa aactccagcc tccgtgtctt caattcagtg  
 1140  
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 1200  
 gaaatc  
 1206

<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

Met	Gly	Leu	Arg	Ile	His	Phe	Val	Val	Asp	Pro	His	Gly	Trp	Cys	Cys	1	5	10	15
Met	Gly	Leu	Ile	Val	Phe	Val	Trp	Leu	Tyr	Asn	Ile	Val	Leu	Ile	Pro	20	25	30	
Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile	35	40	45	
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu	50	55	60	
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys	65	70	75	80
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn	85	90	95	
Leu	Met	Arg	Pro	Lys	Arg	Ser	His	His	Cys	Ser	Arg	Cys	Gly	His	Cys	100	105	110	
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly	115	120	125	
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu	130	135	140	
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe	145	150	155	160
Leu	Pro	Leu	Lys	Lys	Arg	Asn	Leu	Asp	Leu	Phe	Val	Phe	Arg	His	Glu	165	170	175	
Leu	Ala	Ile	Met	Arg	Leu	Ala	Ala	Phe	Met	Gly	Ile	Thr	Met	Leu	Val	180	185	190	
Gly	Ile	Thr	Gly	Leu	Phe	Tyr	Thr	Gln	Leu	Ile	Gly	Ile	Ile	Thr	Pro	195	200	205	
Cys	Ser	Leu	Ile	Leu	Leu	Lys	Cys	Gly	Ser	Val	Ser	Asn	Asn	Ser	Leu				

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Val Lys Leu Leu Leu Cys Leu Asp Ser Pro Leu Ile Gln Trp Ser Thr		255
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		270

Lys

&lt;210&gt; 3545

&lt;211&gt; 3657

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3545

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&lt;210&gt; 3546

&lt;211&gt; 792

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3546

Val	Asn	Val	Trp	Arg	Val	Leu	Gly	Leu	Ala	Gln	Ala	Arg	Ala	Gly	Ala
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Gln	Glu	Val	Trp	Pro	Ile	Ile	Trp	Leu	Arg	Leu	Thr	Leu	Ala	Leu	Thr
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Leu	Ala	Asp	Pro	Gly	Trp	Ala	Ser	Ile	Ser	Arg	Gly	Val	Leu	Val	Cys
	35						40					45			
Asp	Glu	Cys	Cys	Ser	Val	His	Arg	Ser	Leu	Gly	Arg	His	Ile	Ser	Ile
	50					55					60				
Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
65					70					75				80	
Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
			85					90						95	
Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
		100						105					110		
Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
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Gln	Met	Leu	Ala	Phe	Val	His	Lys	Leu	Pro	Cys	Arg	Asp	Asp	Asp	Gly

2708



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 595 600 605  
 Gln Glu Gly Ser Arg His Thr Ser Lys Leu Ser Arg His Gly Ser Gly  
 610 615 620  
 Ala Asp Ser Asp Tyr Glu Asn Thr Gln Ser Gly Asp Pro Leu Leu Gly  
 625 630 635 640  
 Leu Glu Gly Lys Arg Phe Leu Glu Leu Gly Lys Glu Glu Asp Phe His  
 645 650 655  
 Pro Glu Leu Glu Ser Leu Asp Gly Asp Leu Asp Pro Gly Leu Pro Ser  
 660 665 670  
 Thr Glu Asp Val Ile Leu Lys Thr Glu Gln Val Thr Lys Asn Ile Gln  
 675 680 685  
 Glu Leu Leu Arg Ala Ala Gln Glu Phe Lys His Asp Ser Phe Val Pro  
 690 695 700  
 Cys Ser Glu Lys Ile His Leu Ala Val Thr Glu Met Ala Ser Leu Phe  
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 Pro Lys Arg Pro Ala Leu Glu Pro Val Arg Ser Ser Leu Arg Leu Leu  
 725 730 735  
 Asn Ala Ser Ala Tyr Arg Leu Gln Ser Glu Cys Arg Lys Thr Val Pro  
 740 745 750  
 Pro Glu Pro Gly Ala Pro Val Asp Phe Gln Leu Leu Thr Gln Gln Val  
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&lt;210&gt; 3547

&lt;211&gt; 1039

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3547

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<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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Gly	Gln	Leu	Gly	His	Asn	Ser	Thr	Ser	His	Glu	Ile	Asn	Pro	Arg	Lys
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Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
	50					55					60				
Gln	His	Thr	Ser	Ala	Phe	Val	Pro	Ser	Ser	Gly	Arg	Ile	Tyr	Ser	Phe
65					70					75					80
Gly	Leu	Gly	Gly	Asn	Gly	Gln	Leu	Gly	Thr	Gly	Ser	Thr	Ser	Asn	Arg
				85					90					95	
Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
			100					105					110		
Cys	Leu	Pro	Asp	Ile	Asp	Ser	Glu	Glu	Tyr	Phe	Cys	Val	Lys	Arg	Ile
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Phe	Ser	Gly	Gly	Asp	Gln	Ser	Phe	Ser	His	Tyr	Ser	Ser	Pro	Gln	Asn
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Cys	Gly	Pro	Pro	Asp	Asp	Phe	Arg	Cys	Pro	Asn	Pro	Thr	Lys	Gln	Ile
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Trp	Thr	Val	Asn	Glu	Ala	Leu	Ile	Gln	Lys	Trp	Leu	Ser	Tyr	Pro	Ser
			165						170					175	
Gly	Arg	Phe	Pro	Val	Glu	Ile	Ala	Asn	Glu	Ile	Asp	Gly	Thr	Phe	Ser
			180					185					190		
Ser	Ser	Gly	Cys	Leu	Asn	Gly	Ser	Phe	Leu	Ala	Val	Ser	Asn	Asp	Asp
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His	Tyr	Arg	Thr	Gly	Thr	Arg	Phe	Ser	Gly	Val	Asp	Met	Asn	Ala	Ala
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Arg	Leu	Leu	Phe	His	Lys	Leu	Ile	Gln	Pro	Asp	His	Pro	Gln	Ile	Ser

225	230										235				240			
Gln	Gln	Val	Ala	Ala	Ser	Leu	Glu	Lys	Asn	Leu	Ile	Pro	Lys	Leu	Thr			
				245					250					255				
Ser	Ser	Leu	Pro	Asp	Val	Glu	Ala	Leu	Arg	Phe	Tyr	Leu	Thr	Leu	Pro			
			260					265					270					
Glu	Cys	Pro	Leu	Met	Ser	Asp	Ser	Asn	Asn	Phe	Ile	Thr	Ile	Ala	Ile			
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Pro	Phe	Gly	Thr	Ala	Leu	Val	Asn	Leu	Glu	Lys	Ala	Pro	Leu	Lys	Val			
		290				295					300							
Leu	Glu	Asn	Trp	Trp	Ser	Val	Leu	Glu	Pro	Pro	Leu	Phe	Leu	Lys	Ile			
305					310					315					320			
Val	Glu	Leu	Phe	Lys	Glu	Val	Val	Val	His	Leu	Leu	Lys	Leu	Tyr	Lys			
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 3550

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3550

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 His Cys Arg Pro Ser Arg Arg Gly Arg Tyr Glu Lys Ile His Gly Arg  
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 Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg  
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 Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu  
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 100 105 110  
 Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg  
 115 120 125  
 Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg  
 130 135 140  
 Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu  
 145 150 155 160  
 Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg  
 165 170 175  
 Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu  
 180 185 190  
 Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser  
 195 200 205  
 Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly  
 210 215 220  
 Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg  
 225 230 235 240  
 Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe  
 245 250 255  
 Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg  
 260 265 270  
 Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn  
 275 280 285  
 Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu  
 290 295 300  
 Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg  
 305 310 315 320  
 Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro  
 325 330 335  
 Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp  
 340 345 350  
 Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu  
 355 360 365  
 Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro

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385	390	395
Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu		400
	405	410
Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys		415
	420	425
Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg		430
	435	440
Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser		445
	450	455
Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser		460
465	470	475
Met Pro Arg Gly Ser Gly Ser Gly Phe Lys Pro Phe Lys Gly Gly Pro		480
	485	490
Pro Arg Arg Phe		495
500		

&lt;210&gt; 3551

&lt;211&gt; 545

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3551

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60  
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120  
tttcttgtga ctggctataa attccatgca gtgctggaat gtgcttctca cagttagagt  
180  
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240  
catgggctcc agttaaattc attagtggtc cagatgtgtg tcccctgtca gctggccaag  
300  
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360  
gacatgctgg ctgccttgaa gtccaggcag gaagctctgg aggaaacct gcgtcagagg  
420  
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540  
gtcat  
545

&lt;210&gt; 3552

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3552

Pro	His	Cys	Leu	Ser	Thr	Gly	Ser	Gln	Glu	Ser	Asp	Ser	Ser	Gln	Ser
1			5				10						15		
Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln	Glu	Ala	Leu

	20		25		30
Glu	Glu Thr Leu Arg Gln Arg	Leu Glu Glu Leu Lys Lys	Leu Cys Leu		
	35	40	45		
Arg	Glu Ala Val Ser Leu Ser				
50	55				

<210> 3553  
 <211> 1412  
 <212> DNA  
 <213> Homo sapiens

<400> 3553  
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 120  
 gatgaccagc tcaacatcct gcccatctcc tcccacgttg ccaccatgga ggcctcgcct  
 180  
 cccagactc cggtatgagag tcttggtctc tctgatctgg agctgaggga gttgaaggag  
 240  
 agcttgacag acaccagcc tgtgggtgtg ttggtggact gctgtaagac tctagaccag  
 300  
 gccaaagctg tcttgaaatt tctcaggggc atctctgaaa agaccctgag gagtactgtt  
 360  
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 420  
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 480  
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 720  
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 780  
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 840  
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 960  
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 1140  
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 1200  
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 1260

gaacagagggc gtccttgtgg cagtgttttg gggaaccact gaggcattcag gaattagtgg  
 1320  
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 1412

<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

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Gln	Asp	Val	Val	Gly	Arg	Phe	Asn	Glu	Arg	Phe	Ile	Leu	Ser	Leu	Ala
		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35						40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
	50					55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85						90					95	
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
			100						105					110	
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
	115						120					125			
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130						135					140			
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
145					150					155				160	
Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
			165						170					175	
Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
			180						185					190	
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
	195						200					205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210						215					220			
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
225					230					235				240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
			245						250					255	
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260							265				270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
		275					280					285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290						295				300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
305					310					315				320	
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val



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<400> 3555
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120
atgaaccagg cgttgccagag gcgcttcgcc aagggggtgc agtacaacat gaagatagtg
180
atccggggag acaggaacac gggcaagaca gcgctgtggc accgcctgca gggccggccc
240
ttcgtggagg agtacatccc cacacaggag atccagggtca ccagcatcca ctggagctac
300
aagaccacgg atgacatcgt gaaggttgaa gtctgggatg tagtagacaa aggaaaatgc
360
aaaaagcgag gcgacggctt aaagatggag aacgaccccc aggaggcgga gtctgaaatg
420
gccctggatg ctgagttcct ggacgtgtac aagaactgca acggggtggg catgatgttc
480
gacattacca agcagtggac cttcaattac attctccggg agcttccaaa agtgcccacc
540
cacgtgccag tgtgcgtgct ggggaactac cgggacatgg gcgagcaccg agtcatcnn
600
tgccggacgn acgtgcgtga cttcatcgac aacctggaca gacctccagg ttcctcctac
660
ttccgctatg ctgagtcttc catgaagaac agcttcggcc taaagtacct tcataagttc
720
ttcaatatcc catttttgca gcttcagagg gagacgctgt tgcggcagct ggagacgaac
780
cagctggaca tggacgccac gctggaggag ctgtcgggtgc agcaggagac ggaggaccag
840
aactacggca tcttcctgga gatgatggag gctcgcagcc gtggccatgc gtccccactg
900
gcggccaacg ggcagagccc atccccgggc tcccagtcac cagtgggtgc tgcaggcgct
960
gtgtccacgg ggagctccag ccccggcaca gccagccccg cccacagct gccctcaat
1020

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ggttgccccca ccatacctc  
1038

<210> 3556

<211> 333

<212> PRT

<213> Homo sapiens

<400> 3556

Met	Phe	Ser	Ala	Leu	Lys	Lys	Leu	Val	Gly	Ser	Asp	Gln	Ala	Pro	Gly	1	5	10	15
Arg	Asp	Lys	Asn	Ile	Pro	Ala	Gly	Leu	Gln	Ser	Met	Asn	Gln	Ala	Leu	20	25	30	
Gln	Arg	Arg	Phe	Ala	Lys	Gly	Val	Gln	Tyr	Asn	Met	Lys	Ile	Val	Ile	35	40	45	
Arg	Gly	Asp	Arg	Asn	Thr	Gly	Lys	Thr	Ala	Leu	Trp	His	Arg	Leu	Gln	50	55	60	
Gly	Arg	Pro	Phe	Val	Glu	Glu	Tyr	Ile	Pro	Thr	Gln	Glu	Ile	Gln	Val	65	70	75	80
Thr	Ser	Ile	His	Trp	Ser	Tyr	Lys	Thr	Thr	Asp	Asp	Ile	Val	Lys	Val	85	90	95	
Glu	Val	Trp	Asp	Val	Val	Asp	Lys	Gly	Lys	Cys	Lys	Lys	Arg	Gly	Asp	100	105	110	
Gly	Leu	Lys	Met	Glu	Asn	Asp	Pro	Gln	Glu	Ala	Glu	Ser	Glu	Met	Ala	115	120	125	
Leu	Asp	Ala	Glu	Phe	Leu	Asp	Val	Tyr	Lys	Asn	Cys	Asn	Gly	Val	Val	130	135	140	
Met	Met	Phe	Asp	Ile	Thr	Lys	Gln	Trp	Thr	Phe	Asn	Tyr	Ile	Leu	Arg	145	150	155	160
Glu	Leu	Pro	Lys	Val	Pro	Thr	His	Val	Pro	Val	Cys	Val	Leu	Gly	Asn	165	170	175	
Tyr	Arg	Asp	Met	Gly	Glu	His	Arg	Val	Ile	Xaa	Cys	Arg	Thr	Xaa	Val	180	185	190	
Arg	Asp	Phe	Ile	Asp	Asn	Leu	Asp	Arg	Pro	Pro	Gly	Ser	Ser	Tyr	Phe	195	200	205	
Arg	Tyr	Ala	Glu	Ser	Ser	Met	Lys	Asn	Ser	Phe	Gly	Leu	Lys	Tyr	Leu	210	215	220	
His	Lys	Phe	Phe	Asn	Ile	Pro	Phe	Leu	Gln	Leu	Gln	Arg	Glu	Thr	Leu	225	230	235	240
Leu	Arg	Gln	Leu	Glu	Thr	Asn	Gln	Leu	Asp	Met	Asp	Ala	Thr	Leu	Glu	245	250	255	
Glu	Leu	Ser	Val	Gln	Gln	Glu	Thr	Glu	Asp	Gln	Asn	Tyr	Gly	Ile	Phe	260	265	270	
Leu	Glu	Met	Met	Glu	Ala	Arg	Ser	Arg	Gly	His	Ala	Ser	Pro	Leu	Ala	275	280	285	
Ala	Asn	Gly	Gln	Ser	Pro	Ser	Pro	Gly	Ser	Gln	Ser	Pro	Val	Val	Pro	290	295	300	
Ala	Gly	Ala	Val	Ser	Thr	Gly	Ser	Ser	Ser	Pro	Gly	Thr	Ala	Gln	Pro	305	310	315	320
Ala	Pro	Gln	Leu	Pro	Leu	Asn	Gly	Cys	Pro	Thr	Ile	Leu				325	330		

<210> 3557

<211> 486

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3557

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ccggcattga tcaagtccat ctgggctatg gccataagcc aacaccagtt ctatctggac  
120  
agaaagcaga gtaagtccaa aatccatgca gcacgcagcc tgagtgagat cgccatcgac  
180  
ctgaccgaga cggggacgct gaagacctcg aagctggcca acatgggtag caaggggaag  
240  
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300  
attctactcc caggttctca ggaatcagat agctcgagc cggccaagaa ggacatgctg  
360  
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420  
ctgaagaagc tgtgtctccg agaagctgag ctcacgggca agctgccagt agaatatccc  
480  
ctggat  
486

&lt;210&gt; 3558

&lt;211&gt; 162

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3558

Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His	Thr
1				5					10					15	
Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala	Ile
			20					25					30		
Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys	Ile
		35					40					45			
His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu	Thr
		50				55					60				
Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly	Lys
65				70					75					80	
Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gly	Ala
			85					90					95		
Arg	Arg	His	Cys	Ile	Leu	Leu	Pro	Gly	Ser	Gln	Glu	Ser	Asp	Ser	Ser
		100						105					110		
Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu	Lys	Ser	Arg	Gln	Glu
		115				120					125				
Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu
		130				135					140				
Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu	Pro	Val	Glu	Tyr	Pro
145					150					155					160
Leu	Asp														

&lt;210&gt; 3559

&lt;211&gt; 673

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3559

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 120  
 gccggcgaag caggggctat cgagcgggtc ctgagggatt acagcgacaa gcatagggct  
 180  
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 240  
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 300  
 attctctcca gagacaaaaa ggttttagtt cctgtgacaa ctaaggaaaa tatgcagata  
 360  
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 420  
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 480  
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 540  
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 600  
 tcacttttgc acaccgacat caggtcacaa ttgcgctatg agctccaggg actaccgctg  
 660  
 ctaacgcaga tcg  
 673

&lt;210&gt; 3560

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3560

Met Asp Glu Glu Arg Ala Leu Tyr Ile Val Arg Ala Gly Glu Ala Gly  
 1 5 10 15  
 Ala Ile Glu Arg Val Leu Arg Asp Tyr Ser Asp Lys His Arg Ala Thr  
 20 25 30  
 Phe Lys Phe Glu Ser Thr Asp Glu Asp Lys Arg Lys Lys Leu Cys Glu  
 35 40 45  
 Gly Ile Phe Lys Val Leu Ile Lys Asp Ile Pro Thr Thr Cys Gln Val  
 50 55 60  
 Ser Cys Leu Glu Val Leu Arg Ile Leu Ser Arg Asp Lys Lys Val Leu  
 65 70 75 80  
 Val Pro Val Thr Thr Lys Glu Asn Met Gln Ile Leu Leu Arg Leu Ala  
 85 90 95  
 Lys Leu Asn Glu Leu Asp Asp Ser Leu Glu Lys Val Ser Glu Phe Pro  
 100 105 110  
 Val Ile Val Glu Ser Leu Lys Cys Leu Cys Asn Ile Val Phe Asn Ser  
 115 120 125  
 Gln Met Ala Gln Gln Leu Ser Leu Glu Leu Asn Leu Ala Ala Lys Leu  
 130 135 140  
 Cys Asn Leu Leu Arg Lys Cys Lys Asp Arg Lys Phe Ile Asn Asp Ile

145                      150                      155                      160  
 Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr  
                          165                      170                      175  
 Asp Ile Arg Ser Gln Leu Arg Tyr Glu Leu Gln Gly Leu Pro Leu Leu  
                          180                      185                      190  
 Thr Gln Ile  
                          195

<210> 3561

<211> 523

<212> DNA

<213> Homo sapiens

<400> 3561

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 120  
 ggagggcatg agacgcctat tgcagagctg ctcaccagaa ggtcacagga atttagaaga  
 180  
 gaagctccta cctgcccccg atcatgcacg tggccactga ggatgccaga cgagggtgatg  
 240  
 ctggtctcat agagaatgta cccgaaggac tgtccatttc cccattgac tggcagggttc  
 300  
 tccatgttga tgggcttttc agacttgatt ggctgcgtac agaagagatg gaggggtggg  
 360  
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 420  
 aagcggaggt ttgggtgggtg ttttctactt tgacttctca ttgcactaaa catacaactc  
 480  
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 523

<210> 3562

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3562

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 Glu Asn Val Pro Glu Gly Leu Ser Ile Ser Pro Ile Asp Trp Gln Val  
                          20                      25                      30  
 Leu His Val Asp Gly Leu Phe Arg Leu Asp Trp Leu Arg Thr Glu Glu  
                          35                      40                      45  
 Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser  
                          50                      55                      60  
 Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe  
 65                      70                      75                      80  
 Ser Thr Leu Thr Ser His Cys Thr Lys His Thr Thr Leu Gln Gly Asp  
                          85                      90                      95  
 Gly Glu Glu Glu Trp Gly Lys Gly Val Cys  
                          100                      105

<210> 3563  
 <211> 359  
 <212> DNA  
 <213> Homo sapiens

<400> 3563  
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 120  
 cccctgccgc cgtcgacggg gccccagtg ggcgcgggccc tggacgcgga gcagcgcacg  
 180  
 gtgttcgect tcgtgctctg cctgctcgtg gtgctggtgc tgttgatggt gcgctgcgtg  
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 359

<210> 3564  
 <211> 82  
 <212> PRT  
 <213> Homo sapiens

<400> 3564  
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 35 40 45  
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser  
 50 55 60  
 Trp Thr Asp His Lys Glu Ala Leu Glu Arg Gly Gln Phe Asp Tyr Ala  
 65 70 75 80  
 Leu Val

<210> 3565  
 <211> 580  
 <212> DNA  
 <213> Homo sapiens

<400> 3565  
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 120  
 aggacgagcg cgcacttcaa gtcccagaag ccccggtttc ctggagcccg cgccgtgccg  
 180  
 cgctacgccc gccgggagcc gggcagagcg gccaaagtgt cgcagcccaa gaaaagaaag  
 240  
 cttgagtcgg ggggcggcgc cgaaggaggg gagggaaactg aagaggaaga tggcgcggag  
 300

cgggaggcgg ccctggagcg accccggacg actaagcggg aacggggacca gctgtactac  
 360  
 gagggtact cggacgtttc ggtccacgag gagatgatcg cggaccgcgt ccgcaccgat  
 420  
 gcctaccgct gggtttccct tcggaactgg gcagcactgc gaggcaagac ggtactggac  
 480  
 gtggggcgcgg gcaccggcat tctgagcatc ttctgtgccc aggccggggc ccggcgcggtg  
 540  
 tacgcggtag aggccagcgc catctggcaa caggcccggg  
 580

<210> 3566

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3566

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<213> Homo sapiens

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<211> 869

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<213> Homo sapiens

<400> 3568

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&lt;213&gt; Homo sapiens

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Phe	Ser	Val	Gly	Asp	Asp	Ala	Phe	Val	Cys	Gln	Lys	Lys	Asn	His	Phe
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Gln	Val	Thr	Val	Tyr	Ile	Gly	Met	Leu	Gly	Glu	Pro	Lys	Tyr	Val	Lys
145					150					155					160
Thr	Pro	Glu	Gly	Leu	Lys	Pro	Leu	Asp	Cys	Phe	Tyr	Leu	Lys	Leu	His
				165					170					175	
Gly	Val	Lys	Leu	Glu	Ala	Leu	Asn	Gln	Ser	Ile	Asn	Ile	Glu	Gln	Ser
			180					185					190		
Gln	Ser	Asp	Arg	Ser	Lys	Arg	Pro	Phe	Asn	Pro	Val	Thr	Val	Asn	Leu
		195					200						205		
Pro	Pro	Glu	Gln	Val	Thr	Lys	Val	Thr	Val	Gly	Arg	Leu	His	Phe	Ser
		210				215					220				
Glu	Thr	Thr	Ala	Asn	Asn	Met	Arg	Lys	Lys	Gly	Lys	Pro	Asn	Pro	Asp
225					230					235					240
Gln	Arg	Tyr	Phe	Met	Leu	Val	Val	Ala	Leu	Gln	Ala	His	Ala	Gln	Asn
				245					250					255	
Gln	Asn	Tyr	Thr	Leu	Ala	Ala	Gln	Ile	Ser	Glu	Arg	Ile	Ile	Val	Arg
			260					265					270		
Ala	Ser	Asn	Pro	Gly	Gln	Phe	Glu	Ser	Asp	Ser	Asp	Val	Leu	Trp	Gln
		275					280						285		
Arg	Ala	Gln	Val	Pro	Asp	Thr	Val	Phe	His	His	Gly	Arg	Val	Gly	Ile
		290				295					300				
Asn	Thr	Asp	Arg	Pro	Asp	Glu	Ala	Leu	Val	Val	His	Gly	Asn	Val	Lys
305					310					315					320
Val	Met	Gly	Ser	Leu	Met	His	Pro	Ser	Asp	Leu	Arg	Ala	Lys	Glu	His
				325					330					335	
Val	Gln	Glu	Val	Asp	Thr	Thr	Glu	Gln	Leu	Lys	Arg	Ile	Ser	Arg	Met

340 345 350  
 Arg Leu Val His Tyr Arg Tyr Lys Pro Glu Phe Ala Ala Ser Ala Gly  
 355 360 365  
 Ile Glu Ala Thr Ala Pro Glu Thr Gly Val Ile Ala Gln Glu Val Lys  
 370 375 380  
 Glu Ile Leu Pro Glu Ala Val Lys Asp Thr Gly Asp Met Val Phe Ala  
 385 390 395 400  
 Asn Gly Lys Thr Ile Glu Asn Phe Leu Val Val Asn Lys Glu Arg Ile  
 405 410 415  
 Phe Met Glu Asn Val Gly Ala Val Lys Glu Leu Cys Lys Leu Thr Asp  
 420 425 430  
 Asn Leu Glu Thr Arg Ile Asp Glu Leu Glu Arg Trp Ser His Lys Leu  
 435 440 445  
 Ala Lys Leu Arg Arg Leu Asp Ser Leu Lys Ser Thr Gly Ser Ser Gly  
 450 455 460  
 Ala Phe Ser His Ala Gly Ser Gln Phe Ser Arg Ala Gly Ser Val Pro  
 465 470 475 480  
 His Lys Lys Arg Pro Pro Lys Val Ala Ser Lys Ser Ser Ser Val Val  
 485 490 495  
 Pro Asp Gln Ala Cys Ile Ser Gln Arg Phe Leu Gln Gly Thr Ile Ile  
 500 505 510  
 Ala Leu Val Val Val Met Ala Phe Ser Val Val Ser Met Ser Thr Leu  
 515 520 525  
 Tyr Val Leu Ser Leu Arg Thr Glu Glu Asp Leu Val Asp Thr Asp Gly  
 530 535 540  
 Ser Phe Ala Val Ser Thr Ser Cys Leu Leu Ala Leu Leu Arg Pro Gln  
 545 550 555 560  
 Pro Pro Gly Gly Ser Glu Ala Leu Cys Pro Trp Ser Ser Gln Ser Phe  
 565 570 575  
 Gly Thr Thr Gln Leu Arg Gln Ser Pro Leu Thr Thr Gly Leu Pro Gly  
 580 585 590  
 Ile Gln Pro Ser Leu Leu Leu Val Thr Thr Ser Leu Thr Ser Ser Ala  
 595 600 605  
 Pro Gly Ser Ala Val Arg Thr Leu Asp Met Cys Ser Ser His Pro Cys  
 610 615 620  
 Pro Val Ile Cys Cys Ser Ser Pro Thr Thr Asn Pro Thr Thr Gly Pro  
 625 630 635 640  
 Ser Leu Gly Pro Ser Phe Asn Pro Gly His Val Leu Ser Pro Ser Pro  
 645 650 655  
 Ser Pro Ser Thr Asn Arg Ser Gly Pro Ser Gln Met Ala Leu Leu Pro  
 660 665 670  
 Val Thr Asn Ile Arg Ala Lys Ser Trp Gly Leu Ser Val Asn Gly Ile  
 675 680 685  
 Asp His Ser Lys His His Lys Ser Leu Glu Pro Leu Ala Ser Pro Ala  
 690 695 700  
 Val Pro Phe Pro Gly Gly Gln Gly Lys Ala Lys Asn Ser Pro Ser Leu  
 705 710 715 720  
 Gly Phe His Gly Arg Ala Arg Arg Gly Ala Leu Gln Ser Ser Val Gly  
 725 730 735  
 Pro Ala Glu Pro Thr Trp Ala Gln Gly Gln Ser Ala Ser Leu Leu Ala  
 740 745 750  
 Glu Pro Val Pro Ser Leu Thr Ser Ile Gln Val Leu Glu Asn Ser Met  
 755 760 765  
 Ser Ile Thr Ser Gln Tyr Cys Ala Pro Gly Asp Ala Cys Arg Pro Gly



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      770              775              780
Asn Phe Thr Tyr His Ile Pro Val Ser Ser Gly Thr Pro Leu His Leu
785              790              795              800
Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu
      805              810              815
Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro
      820              825              830
Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp
      835              840              845
Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val
      850              855              860
Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro
865              870              875              880
Ala Thr Asp Tyr His Phe His Phe Tyr Arg Leu Cys Asp
      885              890

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&lt;210&gt; 3571

&lt;211&gt; 528

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3571

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acgcgtcccc tgtccggctt ggtatgggtc gcgctgctag cgctaggcca cgccttcctg
60
ttcaccgggg gcgtggtgag cgcctgggac caggtgtcct atttctctt cgcatcttc
120
acggcgatg ccattgctgcc cttgggcatg cgggacgccg ccgtcgcggg cctcgctccc
180
tcactctcgc atctgctggt cctcgggctg tatcttgggc cacagccgga ctcacggcct
240
gcactgctgc cgcaggtgag caccgaagta gcacaggctg cgctcaggac ggctctgcca
300
cgtgctagta ggctcctttt agggggttgt tgagctgtga ctccaaggca aggtgcaacg
360
ctgggcgcag gataccaac cgtgctttcg cagagctggt acaacagtgt gatgcaatgc
420
ctgctgttac cagaagagg atccaggcca cacggaagg agtcgtgtcg tggtttaccc
480
cggggacaac agatgtgggt aatgaaacct tgacagagaa tgaaaaaa
528

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&lt;210&gt; 3572

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3572

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Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly
1              5              10              15
His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val
      20              25              30
Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu
      35              40              45
Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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50		55		60											
Leu	Leu	Val	Leu	Gly	Leu	Tyr	Leu	Gly	Pro	Gln	Pro	Asp	Ser	Arg	Pro
65			70						75						80
Ala	Leu	Leu	Pro	Gln	Val	Ser	Thr	Gln	Val	Ala	Gln	Ala	Ala	Leu	Arg
			85					90						95	
Thr	Ala	Leu	Pro	Arg	Ala	Ser	Arg	Leu	Leu	Leu	Gly	Gly	Cys		
			100					105					110		

&lt;210&gt; 3573

&lt;211&gt; 1236

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3573

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gggggggggg ttatcccttg tttgggacgg ccgggctggt cttcataatg gggcattttc
60
tagccccaga ttaagggggc agttttctttc tttccggcca ccagcgggca ggatcacccc
120
ccctgcctgc tccccaaagc ccagccttca gcccccccaa tcaatcccag ccacacacac
180
agtcccattt tttccatcca ttctgggtact tgtgtgttca ataaacctgg tggacacaca
240
gcttcacata cccacacact cacagccaca aaccccagaa gtcattgcaca tgccgacgca
300
ccttgtggca catgcacaca caaccacact tgtgtgcaaa gtggcagaca caccacaca
360
tgcatagaag caagtctctg gaccccttct gcatcccaca gagggggctc ccctgctgtg
420
tttgattggg tcttcgaagc ggctgcctt gcctccgtgc aggaggatcc cccatcctg
480
cggcagttcc ctccagactt cagggaccag gaagctatgc agatgggtgcc taaattctgc
540
ttcccttttg atgtggaaag ggggcccccc agccccgccc tgcagcattt caccttcgcc
600
ctcacagacc ttgccggcaa ccgcagattt ggtttctgcc gcctgcgggc gggtagccag
660
agctgtctct gtatcctcag ccacctgcct tggttcgagg tgttttaca gctattgaac
720
acagtgggag acctcctagc ccaggaccaa gtcaccgagg cagaggaact tcttcaaaat
780
ctgtttcagc agtccctgtc tgggccccag gcctcagtgg ggcttgagct gggcagcgga
840
gtgacggctc ccagcgggca gggatatcca cccctaccc gggggaatag caagccgctt
900
tcctgcttcg tggccccgga ctccggccgc ctgccatcca tcctgagaa caggaaacct
960
acggagctgg tgggtggcgt gactgacgag aacatcgtgg ggctgttcgc ggcgtcctg
1020
gccgagagaa gagtcctgct caccgccagc aaactcagca cctgaggcg gggccgccc
1080
ggccgggggt ggagcagggc ctggctccgc cccggggggc gggacaaggg ggctgattcc
1140
ttgctctaac cctactgcgc gagaccgag ggcgaagtcc tggccccgcc ccttcgaagg
1200

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1236

<210> 3574

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3574

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Asp	His	Pro	Pro	Cys	Leu	Leu	Pro	Lys	Ala	Gln	Pro	Ser	Ala	Pro	Pro
			20					25				30			
Ile	Asn	Pro	Ser	His	Thr	His	Ser	Pro	Ile	Phe	Ser	Ile	His	Ser	Gly
			35				40					45			
Thr	Cys	Val	Phe	Asn	Lys	Pro	Gly	Gly	His	Thr	Ala	Ser	His	Thr	His
			50				55				60				
Thr	Leu	Thr	Ala	Thr	Asn	Pro	Arg	Ser	His	Ala	His	Ala	Asp	Ala	Pro
65					70					75					80
Cys	Gly	Thr	Cys	Thr	His	Asn	His	Thr	Cys	Val	Gln	Ser	Gly	Arg	His
				85					90					95	
Thr	His	Thr	Cys	Ile	Glu	Ala	Ser	Leu	Trp	Thr	Pro	Ser	Ala	Ser	His
			100					105					110		
Arg	Gly	Gly	Ser	Pro	Ala	Val	Phe	Asp	Trp	Phe	Phe	Glu	Ala	Ala	Cys
			115					120				125			
Pro	Ala	Ser	Val	Gln	Glu	Asp	Pro	Pro	Ile	Leu	Arg	Gln	Phe	Pro	Pro
			130				135					140			
Asp	Phe	Arg	Asp	Gln	Glu	Ala	Met	Gln	Met	Val	Pro	Lys	Phe	Cys	Phe
145					150					155					160
Pro	Phe	Asp	Val	Glu	Arg	Gly	Pro	Pro	Ser	Pro	Ala	Val	Gln	His	Phe
				165					170					175	
Thr	Phe	Ala	Leu	Thr	Asp	Leu	Ala	Gly	Asn	Arg	Arg	Phe	Gly	Phe	Cys
			180					185					190		
Arg	Leu	Arg	Ala	Gly	Thr	Gln	Ser	Cys	Leu	Cys	Ile	Leu	Ser	His	Leu
			195				200					205			
Pro	Trp	Phe	Glu	Val	Phe	Tyr	Lys	Leu	Leu	Asn	Thr	Val	Gly	Asp	Leu
			210				215					220			
Leu	Ala	Gln	Asp	Gln	Val	Thr	Glu	Ala	Glu	Glu	Leu	Leu	Gln	Asn	Leu
225					230					235					240
Phe	Gln	Gln	Ser	Leu	Ser	Gly	Pro	Gln	Ala	Ser	Val	Gly	Leu	Glu	Leu
				245					250					255	
Gly	Ser	Gly	Val	Thr	Val	Ser	Ser	Gly	Gln	Gly	Ile	Pro	Pro	Pro	Thr
			260					265					270		
Arg	Gly	Asn	Ser	Lys	Pro	Leu	Ser	Cys	Phe	Val	Ala	Pro	Asp	Ser	Gly
			275				280					285			
Arg	Leu	Pro	Ser	Ile	Pro	Glu	Asn	Arg	Asn	Leu	Thr	Glu	Leu	Val	Val
			290				295				300				
Ala	Val	Thr	Asp	Glu	Asn	Ile	Val	Gly	Leu	Phe	Ala	Ala	Leu	Leu	Ala
305					310					315					320
Glu	Arg	Arg	Val	Leu	Leu	Thr	Ala	Ser	Lys	Leu	Ser	Thr	Leu	Arg	Arg
				325					330					335	
Gly	Pro	Pro	Gly	Arg	Gly	Gly	Ser	Arg	Ala	Trp	Leu	Arg	Pro	Gly	Gly
			340					345					350		
Arg	Asp	Lys	Gly	Ala	Asp	Ser	Leu	Leu							

355

360

<210> 3575  
 <211> 769  
 <212> DNA  
 <213> Homo sapiens

<400> 3575  
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 60  
 gcatataagc aacgtgaggt gcagttggag gataaatatg atagtttgga aacaccattc  
 120  
 cagtcaaagg tgctggagtt gtgtctgtat agaagtaagt cgtcccacca acagtttcct  
 180  
 tttggatcac ctgaccagaa gacggagtct gagaaacagg attattaaca gatgtagagg  
 240  
 cactagaagg caccatgtaa cttgctggat ttggagtgtg acttcttctt ctgggagcag  
 300  
 gagaagtatg tggagtaatc ttgggggaat gaagagggga agaccagca gacaacgaca  
 360  
 ttcctgaaga ggatgtaaaa atgtttctta atggagcaat aattggtttt agagaacaag  
 420  
 tctggaaaat aaaatgcaaa cattcatttg gaagaaacat catctttggg atcgtaagtg  
 480  
 caaagatgaa ggaaataatt ttatcttggt ttgttgtaga aaaagctctg attaaagcaa  
 540  
 atgtaaagtt tcttttttca aatgtactta tttccaaata tgtagcaga tttactgcaa  
 600  
 gaatagtctc ctccatatca aggtttacat caggaaattt aatagcaaga gtgacaaaaa  
 660  
 atttaataaa ttaatggaag agtgggaagt aacagaattg tggctcttta taaaattatg  
 720  
 ccttttataa aagtttttct tttataaaag gcataattcc ttttttatt  
 769

<210> 3576  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 3576  
 Met Glu Glu Thr Ile Leu Ala Val Asn Leu Leu Thr Tyr Leu Glu Ile  
 1 5 10 15  
 Ser Thr Phe Glu Lys Arg Asn Phe Thr Phe Ala Leu Ile Arg Ala Phe  
 20 25 30  
 Ser Thr Thr Lys Gln Asp Lys Ile Ile Ser Phe Ile Phe Ala Leu Thr  
 35 40 45  
 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe  
 50 55 60  
 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe  
 65 70 75 80  
 Thr Ser Ser Ser Gly Met Ser Leu Ser Ala Gly Ser Ser Pro Leu His  
 85 90 95  
 Ser Pro Lys Ile Thr Pro His Thr Ser Pro Ala Pro Arg Arg Arg Ser

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<210> 3577
<211> 1225
<212> DNA
<213> Homo sapiens
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<400> 3577
gtcgactcca ttcggcgctca gtttgagttc agtgtggact ctttccaaat catcctggat
60
tctttgcttt tcttctatga ctgttccaat aatcccattt ctgagcactt ccaccccacc
120
gtgattgggg agagcatgta cggggacttt gaggaagctt ttgaccatct gcagaacaga
180
ctgatcgcca ccaagaaccc agaagaaatc agaggcgggg gacttctcaa gtacagcaac
240
cttcttgtgc gggacttcag gccacagac caggaagaaa tcaaaactct agagcgctac
300
atgtgctcca ggttcttcat cgacttcccg gacatccttg aacagcagag gaagttggag
360
acttaccttc aaaaccactt cgctgaagaa gagagaagca agtacgacta cctcatgac
420
cttcgcaggg tgggtgaacga gagcaccgtg tgtctcatgg ggcatgaacg caggcagact
480
ctgaacctca tctccctcct ggccttgctg gtgctgggcg gaacaaaaca tcatcccca
540
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660
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720
ctcaggtagg ggagctcctt ctagatgtag gcatttgact tttaaagggg aactcagctc
780
tgattctgct tttttttttt tttttccttt gtgtacccat tggaatgggt ctacagtgt
840
tcatgagcca accctcaaag gaccctgatt acagtgccac gttggaaaac gctacaggaa
900
gcatgacctt tccacatctt tccaagatag acactaacat gtcatgtccc aaacattagc
960
acgtgggggt tgagctctgt gcagtaatcg agattgggag aatttgggca gcgcgtgaga
1020

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agtgctaagc tacttgtttt ctcaacttgag cccgggtagg ctgtgttggc cctcaacttgg  
 1080  
 gattctcagc agttacatga aagttgtgct gataatctct tctcttgtag caatttttagt  
 1140  
 caggcagaaa atggtaaaca tgagggtgct cttgtgactt aatttttgtt caagggacta  
 1200  
 agttgcttat gtttattccc tgtca  
 1225

<210> 3578

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3578

Val	Asp	Ser	Ile	Arg	Arg	Gln	Phe	Glu	Phe	Ser	Val	Asp	Ser	Phe	Gln
1				5					10					15	
Ile	Ile	Leu	Asp	Ser	Leu	Leu	Phe	Phe	Tyr	Asp	Cys	Ser	Asn	Asn	Pro
			20					25					30		
Ile	Ser	Glu	His	Phe	His	Pro	Thr	Val	Ile	Gly	Glu	Ser	Met	Tyr	Gly
		35				40						45			
Asp	Phe	Glu	Glu	Ala	Phe	Asp	His	Leu	Gln	Asn	Arg	Leu	Ile	Ala	Thr
	50				55						60				
Lys	Asn	Pro	Glu	Glu	Ile	Arg	Gly	Gly	Gly	Leu	Leu	Lys	Tyr	Ser	Asn
65					70					75					80
Leu	Leu	Val	Arg	Asp	Phe	Arg	Pro	Thr	Asp	Gln	Glu	Glu	Ile	Lys	Thr
			85					90						95	
Leu	Glu	Arg	Tyr	Met	Cys	Ser	Arg	Phe	Phe	Ile	Asp	Phe	Pro	Asp	Ile
			100					105					110		
Leu	Glu	Gln	Gln	Arg	Lys	Leu	Glu	Thr	Tyr	Leu	Gln	Asn	His	Phe	Ala
		115				120						125			
Glu	Glu	Glu	Arg	Ser	Lys	Tyr	Asp	Tyr	Leu	Met	Ile	Leu	Arg	Arg	Val
	130				135						140				
Val	Asn	Glu	Ser	Thr	Val	Cys	Leu	Met	Gly	His	Glu	Arg	Arg	Gln	Thr
145					150					155					160
Leu	Asn	Leu	Ile	Ser	Leu	Leu	Ala	Leu	Arg	Val	Leu	Gly	Gly	Thr	Lys
			165					170						175	
His	His	Pro	Pro	Val	Pro	Pro	Arg	Ser	Pro	Val	Thr	Thr	Ser	Gly	Pro
			180					185						190	
Leu	Ser	Gln													
		195													

<210> 3579

<211> 755

<212> DNA

<213> Homo sapiens

<400> 3579

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 120  
 cagatactcc agccacccgc aaggttccag gaaaggacaa tgtcctgcga gaaaatcagg  
 180

aggcctccac ttcttgggcc acttgagaag ttcttgggca tgtcactaca tgttggttga  
 240  
 ctccagccatt tctcatgctg ttttgtttct tgcggtggcc acttaacccc aaagaatgaa  
 300  
 gggaggatcc acagtgaaag tgcctgagtt tctctatgag accagatgct gtcgaaacca  
 360  
 aacatctttt cctttgctct atgggaacat tttagggttt gttttgcaca gctggtttcc  
 420  
 agactagaag attaacaagt ttgggtccac ccctaagaat cagtggctgt cttttaaggt  
 480  
 gaggagtgtg ggcttaactg aggtcctttg agggagctat aaaggagaaa caacctggga  
 540  
 catcccagtt ttctatttcc tccactgtta atatctcatc taaaataatt catgagttta  
 600  
 aatggtaaat atatgcttta agctctacct ttaaacttgt atgttattca ggcattctct  
 660  
 attaagatac tgggtctctg gatacccaag gaaatgttgg ctttttattc ttatgtgggt  
 720  
 ccaaatttac ttctcttcag ttttaattgtc catgg  
 755

&lt;210&gt; 3580

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3580

Met	Phe	Gly	Phe	Asp	Ser	Ile	Trp	Ser	His	Arg	Glu	Thr	Gln	Ala	Leu
1				5					10					15	
Ser	Leu	Trp	Ile	Leu	Pro	Ser	Phe	Phe	Gly	Val	Lys	Trp	Pro	Pro	Gln
			20					25					30		
Glu	Thr	Lys	Gln	His	Glu	Lys	Trp	Leu	Ser	Gln	Pro	Thr	Cys	Ser	Asp
		35					40					45			
Met	Pro	Arg	Asn	Phe	Ser	Ser	Gly	Pro	Gly	Ser	Gly	Gly	Leu	Leu	Ile
	50					55					60				
Phe	Ser	Gln	Asp	Ile	Val	Leu	Ser	Trp	Asn	Leu	Ala	Gly	Gly	Trp	Ser
65					70				75					80	
Ile	Cys	Ile	Trp	Ser	Ile	Ala	Arg	Leu	Ser	His	Leu	Ser	Ser	Asp	Gln
				85				90						95	
Lys	Cys	Ile	Ser	Lys	Ile	Ile	Thr	Ser	Thr	Lys	Thr	Ile	Ile	Asp	Cys
				100				105						110	
Glu	Gln	Thr	Phe	Ser	Val	Thr	Ser	Arg							
				115				120							

&lt;210&gt; 3581

&lt;211&gt; 2132

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3581

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 60  
 tgcacgaccg ccagcgcgctg ctccactggg acctgcgcgg ccccgggggg ggccccgcgc  
 120

ggcgctgct ggacttgtag tcggcgggag agcagcgct gtacgaggcg cgggaccgag  
180  
gccgcctgga gctctcgcc tcggccttcg acgacggcaa cttctcgctg ctcacccgag  
240  
cggaggagga gacggacgag gggctgtaca cctgcaacct gcaccatcac tactgccacc  
300  
tctacgagag cctggccgct cgcctggagg tcaccgacgg cccccggcc acccccgct  
360  
actgggacgg cgagaaggag gtgctggcgg tggcgcgagg cgcaccgag cttctgacct  
420  
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<213> Homo sapiens

<400> 3582

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<211> 1554

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<213> Homo sapiens

<400> 3583

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&lt;211&gt; 2782

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3585

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&lt;210&gt; 3586

&lt;211&gt; 663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3586

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&lt;210&gt; 3587

&lt;211&gt; 3148

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3587

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<210> 3588

<211> 499

<212> PRT

<213> Homo sapiens

<400> 3588

Met	Ser	Leu	Ala	Asp	Glu	Leu	Leu	Ala	Asp	Leu	Glu	Glu	Ala	Ala	Glu
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Glu	Glu	Glu	Gly	Ser	Tyr	Gly	Glu	Glu	Glu	Glu	Glu	Pro	Ala	Ile	
			20				25					30			
Glu	Asp	Val	Gln	Glu	Glu	Thr	Gln	Leu	Asp	Leu	Ser	Gly	Asp	Ser	Val
			35				40					45			
Lys	Thr	Ile	Ala	Lys	Leu	Trp	Asp	Ser	Lys	Met	Phe	Ala	Glu	Ile	Met
			50				55				60				
Met	Lys	Ile	Glu	Glu	Tyr	Ile	Ser	Lys	Gln	Ala	Lys	Ala	Ser	Glu	Val
65					70				75					80	
Met	Gly	Pro	Val	Glu	Ala	Ala	Pro	Glu	Tyr	Arg	Val	Ile	Val	Asp	Ala
			85						90					95	
Asn	Asn	Leu	Thr	Val	Glu	Ile	Glu	Asn	Glu	Leu	Asn	Ile	Ile	His	Lys
			100					105				110			
Phe	Ile	Arg	Asp	Lys	Tyr	Ser	Lys	Arg	Phe	Pro	Glu	Leu	Glu	Ser	Leu
			115				120				125				
Val	Pro	Asn	Ala	Leu	Asp	Tyr	Ile	Arg	Thr	Val	Lys	Glu	Leu	Gly	Asn
			130				135				140				
Ser	Leu	Asp	Lys	Cys	Lys	Asn	Asn	Glu	Asn	Leu	Gln	Gln	Ile	Leu	Thr
145					150				155					160	
Asn	Ala	Thr	Ile	Met	Val	Val	Ser	Val	Thr	Ala	Ser	Thr	Thr	Gln	Gly
			165					170						175	
Gln	Gln	Leu	Ser	Glu	Glu	Glu	Leu	Glu	Arg	Leu	Glu	Glu	Ala	Cys	Asp

180 185 190  
 Met Ala Leu Glu Leu Asn Ala Ser Lys His Arg Ile Tyr Glu Tyr Val  
 195 200 205  
 Glu Ser Arg Met Ser Phe Ile Ala Pro Asn Leu Ser Ile Ile Ile Gly  
 210 215 220  
 Ala Ser Thr Ala Ala Lys Ile Met Gly Val Ala Gly Gly Leu Thr Asn  
 225 230 235 240  
 Leu Ser Lys Met Pro Ala Cys Asn Ile Met Leu Leu Gly Ala Gln Arg  
 245 250 255  
 Lys Thr Leu Ser Gly Phe Ser Ser Thr Ser Val Leu Pro His Thr Gly  
 260 265 270  
 Tyr Ile Tyr His Ser Asp Ile Val Gln Ser Leu Pro Pro Asp Leu Arg  
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 Arg Lys Ala Ala Arg Leu Val Ala Ala Lys Cys Thr Leu Ala Ala Arg  
 290 295 300  
 Val Asp Ser Phe His Glu Ser Thr Glu Gly Lys Val Gly Tyr Glu Leu  
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 Lys Asp Glu Ile Glu Arg Lys Phe Asp Lys Trp Gln Glu Pro Pro Pro  
 325 330 335  
 Val Lys Gln Val Lys Pro Leu Pro Ala Pro Leu Asp Gly Gln Arg Lys  
 340 345 350  
 Lys Arg Gly Gly Arg Arg Tyr Arg Lys Met Lys Glu Arg Leu Gly Leu  
 355 360 365  
 Thr Glu Ile Arg Lys Gln Ala Asn Arg Met Ser Phe Gly Glu Ile Glu  
 370 375 380  
 Glu Asp Ala Tyr Gln Glu Asp Leu Gly Phe Ser Leu Gly His Leu Gly  
 385 390 395 400  
 Lys Ser Gly Ser Gly Arg Val Arg Gln Thr Gln Val Asn Glu Ala Thr  
 405 410 415  
 Lys Ala Arg Ile Ser Lys Thr Leu Gln Arg Thr Leu Gln Lys Gln Ser  
 420 425 430  
 Val Val Tyr Gly Gly Lys Ser Thr Ile Arg Asp Arg Ser Ser Gly Thr  
 435 440 445  
 Ala Ser Ser Val Ala Phe Thr Pro Leu Gln Gly Leu Glu Ile Val Asn  
 450 455 460  
 Pro Gln Ala Ala Glu Lys Lys Val Ala Glu Ala Asn Gln Lys Tyr Phe  
 465 470 475 480  
 Ser Ser Met Ala Glu Phe Leu Lys Val Lys Gly Glu Lys Ser Gly Leu  
 485 490 495  
 Met Ser Thr

&lt;210&gt; 3589

&lt;211&gt; 675

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3589

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 aatagttctt gaccaggtc cctccatgaa cctcgaagct gaccagcca taggggggat  
 180

accttcattt cagtcccagc agcctcccc aaccagtcag ggtccctgaa gagcatctgg  
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 300  
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 420  
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 675

<210> 3590

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3590

Met	Leu	Pro	Thr	Arg	Pro	Pro	Asn	Thr	Leu	Ala	Ser	Gly	Val	Ser	Thr
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		20					25						30		
Asp	Pro	Met	Ser	Pro	Phe	His	Leu	Ser	Ser	Val	Ile	Leu	Cys	Arg	Pro
		35				40						45			
Ser	Ala	Trp	Pro	Cys	Leu	Arg	Ser	Ser	Pro	Pro	Ala	Ala	Gln	Gly	
	50				55					60					
Ser	Phe	Val	Ser	Ala	Gln	Glu	Gly	Pro	Tyr	Asn	Pro	Ser	Trp	Leu	Trp
65				70				75					80		
Pro	Gly	Pro	Cys	Phe	Val	Ser	Glu	Leu	Gly	Gly	Pro	Ile	Pro	Lys	His
			85				90						95		
Trp	Leu	Gly	Asn	Ser	Tyr	Pro	Ile	Cys	Cys	Leu	Gly	Ser	Ala	Trp	Phe
			100				105						110		
Phe	Thr	His	Ile	Ser											
			115												

<210> 3591

<211> 669

<212> DNA

<213> Homo sapiens

<400> 3591

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cacattgatt ctgggaaaac tacattaaca gaacgagtcc ttactacac tggcagaatt  
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<210> 3592

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

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		20						25					30		
Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
		35					40					45			
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
	50					55					60				
Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
65					70					75				80	
Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
			85					90						95	
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
		100						105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
		115					120					125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
	130					135					140				
Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
145					150					155				160	
Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
			165					170						175	
Leu	Thr	Phe	Ile	Asn	Lys	Leu	Asp	Arg	Met	Gly	Ser	Asn	Pro	Ala	Arg
		180					185						190		
Ala	Leu	Gln	Gln	Met	Arg	Ser	Lys	Leu	Asn	His	Asn	Ala	Ala	Phe	Met
	195						200					205			
Gln	Ile	Pro	Met	Gly	Leu	Glu	Gly	Asn	Phe	Lys	Gly	Ile	Val	Asp	
	210					215						220			

<210> 3593  
 <211> 1005  
 <212> DNA  
 <213> Homo sapiens

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 180  
 gtagtctcca agccgttgac ccattgcag gaagagatgg cgtctctact gcagcagatt  
 240  
 gagatagaga gaagcctgta ttcagaccac gagcttcgtg ctctggatga aaaccagcga  
 300  
 ctggcaaaga agaaagctga ccttcctgat gaagaagatg aacaggatat attgctggcg  
 360  
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 420  
 acagaagctg atgaaaagaa tgaccgaaca tccctgaaca ggaagctaga caggaacctt  
 480  
 gtctgttag ttagagagaa gtttgagac caggatgttt ggatactgcc ccaggcagag  
 540  
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 840  
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<210> 3594  
 <211> 282  
 <212> PRT  
 <213> Homo sapiens

<400> 3594  
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 20 25 30  
 Arg Ser Leu Ala Leu Ala Ala Ala Pro Ser Ser Asn Gly Ser Pro Trp  
 35 40 45  
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

50	55	60
Pro Leu Thr	Pro Leu Gln Glu Glu Met Ala Ser Leu Leu Gln Gln Ile	
65	70	75
Glu Ile Glu Arg Ser Leu Tyr Ser Asp His Glu Leu Arg Ala Leu Asp		80
	85	90
Glu Asn Gln Arg Leu Ala Lys Lys Lys Ala Asp Leu His Asp Glu Glu		95
	100	105
Asp Glu Gln Asp Ile Leu Leu Ala Gln Asp Leu Glu Asp Met Trp Glu		110
	115	120
Gln Lys Phe Leu Gln Phe Lys Leu Gly Ala Arg Ile Thr Glu Ala Asp		125
	130	135
Glu Lys Asn Asp Arg Thr Ser Leu Asn Arg Lys Leu Asp Arg Asn Leu		140
	145	150
Val Leu Leu Val Arg Glu Lys Phe Gly Asp Gln Asp Val Trp Ile Leu		155
	165	170
Pro Gln Ala Glu Trp Gln Pro Gly Glu Thr Leu Arg Gly Thr Ala Glu		175
	180	185
Arg Thr Leu Ala Thr Leu Ser Glu Asn Asn Met Glu Ala Lys Phe Leu		190
	195	200
Gly Asn Ala Pro Cys Gly His Tyr Thr Phe Lys Phe Pro Gln Ala Met		205
	210	215
Arg Thr Glu Ser Asn Leu Gly Ala Lys Val Phe Phe Phe Lys Ala Leu		220
	225	230
Leu Leu Thr Gly Asp Phe Ser Gln Ala Gly Asn Lys Gly His His Val		235
	245	250
Trp Val Thr Lys Asp Glu Leu Gly Asp Tyr Leu Lys Pro Lys Tyr Leu		255
	260	265
Ala Gln Val Arg Arg Phe Val Ser Asp Leu		270
	275	280

&lt;210&gt; 3595

&lt;211&gt; 1903

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3595

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 1860  
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 1903

&lt;210&gt; 3596

&lt;211&gt; 496

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3596

Phe Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val

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Glu Gln Leu Glu Lys Ala Lys Ala Tyr Ala Ala Asn Ser His Gln Gly			
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Gln Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu			
35	40	45	
Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile			
50	55	60	
Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly			
65	70	75	80
Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met			
85	90	95	
Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Leu Lys			
100	105	110	
Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro			
115	120	125	
Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro			
130	135	140	
Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly			
145	150	155	160
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr			
165	170	175	
Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr			
180	185	190	
Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu			
195	200	205	
Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly			
210	215	220	
Ala Phe Asn Phe Asp Gln Glu Thr Val Ile Asn Pro Glu Thr Gly Glu			
225	230	235	240
Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe			
245	250	255	
Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly			
260	265	270	
Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu			
275	280	285	
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val			
290	295	300	
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn			
305	310	315	320
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu			
325	330	335	
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser			
340	345	350	
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg			
355	360	365	
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val			
370	375	380	
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly			
385	390	395	400
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg			
405	410	415	
Asp Thr Val Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro			
420	425	430	
Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr			



	435		440		445										
Glu	Ala	Ser	Ala	Ala	Gly	Leu	Ile	Arg	Ser	Phe	Ser	Glu	Arg	Phe	Pro
	450		455		460										
Glu	Asp	Gly	Pro	Glu	Leu	Glu	Ile	Leu	Thr	Gln	Leu	Ala	Thr	Ala	
465				470				475					480		
Asp	Ala	Arg	Phe	Trp	Lys	Gly	Pro	Ser	Glu	Ala	Pro	Ser	Gly	Gln	Ala
			485					490					495		

&lt;210&gt; 3597

&lt;211&gt; 1090

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3597

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ctgcagaaga
1090

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&lt;210&gt; 3598

<211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 3598  
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 35 40 45  
 Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg  
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 Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys  
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 His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala  
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 Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu  
 100 105 110  
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<210> 3599  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

<400> 3599  
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<210> 3600

<211> 98

<212> PRT

<213> Homo sapiens

<400> 3600

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Met	Val	Glu	Val	Arg	Ser	Trp	Ser	Gly	Ser	Leu	Val	Gly	Trp	Leu	Ala
	35					40				45					
Pro	Arg	Pro	Leu	Ser	Val	Pro	Ile	Glu	His	Leu	Leu	Gly	Ala	Lys	Asn
	50				55					60					
Cys	Cys	Arg	His	Gly	Gly	Gln	Trp	Val	Arg	Arg	Ala	Val	Pro	Ala	Val
65				70					75				80		
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Leu	Leu														

<210> 3601

<211> 2963

<212> DNA

<213> Homo sapiens

<400> 3601

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 2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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			20					25					30		
Glu	Ala	Arg	Glu	Leu	Met	Tyr	Ser	Gly	Ala	Leu	Leu	Phe	Phe	Ser	His
			35					40					45		
Gly	Gln	Gln	Asn	Ser	Ala	Ala	Asp	Leu	Ser	Met	Leu	Val	Leu	Glu	Ser
			50					55					60		
Leu	Glu	Lys	Ala	Glu	Val	Glu	Val	Ala	Asp	Glu	Leu	Leu	Glu	Asn	Leu
Ala	Lys	Val	Phe	Ser	Leu	Met	Asp	Pro	Asn	Ser	Pro	Glu	Arg	Val	Thr
Phe	Val	Ser	Arg	Ala	Leu	Lys	Trp	Ser	Ser	Gly	Gly	Ser	Gly	Lys	Leu
Gly	His	Pro	Arg	Leu	His	Gln	Leu	Leu	Ala	Leu	Thr	Leu	Trp	Lys	Glu
Gln	Asn	Tyr	Cys	Glu	Ser	Arg	Tyr	His	Phe	Leu	His	Ser	Ala	Asp	Gly
Glu	Gly	Cys	Ala	Asn	Met	Leu	Val	Glu	Tyr	Ser	Thr	Ser	Arg	Gly	Phe
Arg	Ser	Glu	Val	Asp	Met	Phe	Val	Ala	Gln	Ala	Val	Leu	Gln	Phe	Leu
Cys	Leu	Lys	Asn	Lys	Ser	Ser	Ala	Ser	Val	Val	Phe	Thr	Thr	Tyr	Thr
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<210> 3603
<211> 1082
<212> DNA
<213> Homo sapiens
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2762

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 1082

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 <211> 146  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser  
 50 55 60  
 Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu  
 65 70 75 80  
 Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu  
 85 90 95  
 Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu  
 100 105 110  
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 115 120 125  
 Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser  
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<210> 3605  
 <211> 2004  
 <212> DNA  
 <213> Homo sapiens

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2004

&lt;210&gt; 3606



&lt;211&gt; 324

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3606

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Pro Arg Gly Val Gln Arg Val Glu Gly Lys Leu Arg Ala Ser Val Glu
          20           25           30
Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
          35           40           45
Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
          50           55           60
Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
65           70           75           80
Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
          85           90           95
Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
          100          105          110
Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
          115          120          125
Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
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Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
145          150          155          160
Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
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Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
          180          185          190
Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
          195          200          205
Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
          210          215          220
Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
225          230          235          240
Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
          245          250          255
Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
          260          265          270
Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
          275          280          285
Ser Ser Tyr Gly Gly Leu Leu Gly Asn Leu Leu Thr Ser Leu Met Gly
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305          310          315          320
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&lt;210&gt; 3607

&lt;211&gt; 1726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3607

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<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

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			20					25				30			
Glu	Val	Lys	Trp	Ser	Val	Arg	Met	Thr	Leu	Cys	Ala	Gly	Ile	Cys	Ser
		35					40					45			
Tyr	Glu	Gly	Lys	Gly	Gly	Met	Cys	Ser	Ile	Arg	Leu	Ser	Glu	Pro	Leu
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Leu	Lys	Leu	Arg	Pro	Arg	Lys	Asp	Leu	Val	Glu	Thr	Leu	Leu	His	Glu
65					70					75				80	
Met	Ile	His	Ala	Tyr	Leu	Phe	Val	Thr	Asn	Asn	Asp	Lys	Asp	Arg	Glu
			85						90					95	
Gly	His	Gly	Pro	Glu	Phe	Cys	Lys	His	Met	His	Arg	Ile	Asn	Ser	Leu
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Thr	Gly	Ala	Asn	Ile	Thr	Val	Tyr	His	Thr	Phe	His	Asp	Glu	Val	Asp
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Glu	Tyr	Arg	Arg	His	Trp	Trp	Arg	Cys	Asn	Gly	Pro	Cys	Gln	His	Arg
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Pro	Pro	Tyr	Tyr	Gly	Tyr	Val	Lys	Arg	Ala	Thr	Asn	Arg	Glu	Pro	Ser
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		180						185					190		
Lys	Ala	Lys	Leu	Gly	Lys	Glu	Pro	Val	Leu	Ala	Ala	Glu	Asn	Lys	Asp
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Lys	Pro	Asn	Arg	Gly	Glu	Ala	Gln	Leu	Val	Ile	Pro	Phe	Ser	Gly	Lys
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Gly	Tyr	Val	Leu	Gly	Glu	Thr	Ser	Asn	Leu	Pro	Ser	Pro	Gly	Lys	Leu
225				230						235				240	
Ile	Thr	Ser	His	Ala	Ile	Asn	Lys	Thr	Gln	Asp	Leu	Leu	Asn	Gln	Asn
			245						250					255	
His	Ser	Ala	Asn	Ala	Val	Arg	Pro	Asn	Ser	Lys	Ile	Lys	Val	Lys	Phe
		260						265					270		
Glu	Gln	Asn	Gly	Ser	Ser	Lys	Asn	Ser	His	Leu	Val	Ser	Pro	Ala	Val
	275						280					285			
Ser	Asn	Ser	His	Gln	Asn	Val	Leu	Ser	Asn	Tyr	Phe	Pro	Arg	Val	Ser
	290					295					300				
Phe	Ala	Asn	Gln	Lys	Ala	Phe	Arg	Gly	Val	Asn	Gly	Ser	Pro	Arg	Ile
305				310						315				320	
Ser	Val	Thr	Val	Gly	Asn	Ile	Pro	Lys	Asn	Ser	Val	Ser	Ser	Ser	Ser
			325						330					335	
Gln	Arg	Arg	Val	Ser	Ser	Ser	Lys	Ile	Ser	Leu	Arg	Asn	Ser	Ser	Lys

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<400> 3609
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120
tgcgtcaacc agtgggagca gctgaggggg ccgggtggca acgaggatgg gccacagaag
180
ctggacttgg aagctgatgc tgagcccaa gacctcgaga gtacgaacct cttggagagt
240
gaagctccca gggactatct cctcaagttt gcctatatct tggatttgga cagcgacaca
300
gcagacaagt tcctgcagct gntttggaac caaagggtgc aagaggggtgc tgtgtcctat
360
caannctacc cctgtgcgc caccgccttc acccattgtg agcagggtgct gggcgagggc
420
gccctggacc gaggcaccta ctactgggag gtggagatta tcgagggctg ggtcagcatg
480
gggggtcatg cgcgagactt ctccccacaa gagccctacg accgcggccg gctgggcccgc
540
aacgcccact cctgctgcct gcagtggaat ggacgcagct tctccgtctg gtttcatggg
600
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660
gaccgtgcct tggccttcta tgctgtacgg gacggcaaga tgagcctcct gcggaggctg
720
aaggcctccc ggccccgcgc ggggtggcat ccggcctccc ccattgacct cttccagagc
780
cgcttgaca gtcactttgc ggggctcttc acccacagac tcaagcctgc cttcttctg
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900
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960
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1020
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 1140  
 cagctccaag ctaccctaac ccctcctttc ccaggtttct agaatagtgt ctggcatgta  
 1200  
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 1260  
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 1286

<210> 3610

<211> 268

<212> PRT

<213> Homo sapiens

<400> 3610

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Gly	Gly	Asn	Glu	Asp	Gly	Pro	Gln	Lys	Leu	Asp	Leu	Glu	Ala	Asp	Ala
			20					25					30		
Glu	Pro	Gln	Asp	Leu	Glu	Ser	Thr	Asn	Leu	Leu	Glu	Ser	Glu	Ala	Pro
			35				40					45			
Arg	Asp	Tyr	Phe	Leu	Lys	Phe	Ala	Tyr	Ile	Val	Asp	Leu	Asp	Ser	Asp
	50					55					60				
Thr	Ala	Asp	Lys	Phe	Leu	Gln	Leu	Xaa	Trp	Asn	Gln	Arg	Cys	Gln	Glu
65					70					75					80
Gly	Ala	Val	Ser	Tyr	Gln	Xaa	Tyr	Pro	Leu	Ser	Pro	Thr	Arg	Phe	Thr
				85				90						95	
His	Cys	Glu	Gln	Val	Leu	Gly	Glu	Gly	Ala	Leu	Asp	Arg	Gly	Thr	Tyr
			100					105					110		
Tyr	Trp	Glu	Val	Glu	Ile	Ile	Glu	Gly	Trp	Val	Ser	Met	Gly	Val	Met
		115					120					125			
Ala	Ala	Asp	Phe	Ser	Pro	Gln	Glu	Pro	Tyr	Asp	Arg	Gly	Arg	Leu	Gly
	130					135					140				
Arg	Asn	Ala	His	Ser	Cys	Cys	Leu	Gln	Trp	Asn	Gly	Arg	Ser	Phe	Ser
145					150					155					160
Val	Trp	Phe	His	Gly	Leu	Glu	Ala	Pro	Leu	Pro	His	Pro	Phe	Ser	Pro
				165					170					175	
Thr	Val	Gly	Val	Cys	Leu	Glu	Tyr	Ala	Asp	Arg	Ala	Leu	Ala	Phe	Tyr
			180					185					190		
Ala	Val	Arg	Asp	Gly	Lys	Met	Ser	Leu	Leu	Arg	Arg	Leu	Lys	Ala	Ser
		195					200					205			
Arg	Pro	Arg	Arg	Gly	Gly	Ile	Pro	Ala	Ser	Pro	Ile	Asp	Pro	Phe	Gln
	210					215					220				
Ser	Arg	Leu	Asp	Ser	His	Phe	Ala	Gly	Leu	Phe	Thr	His	Arg	Leu	Lys
225					230					235					240
Pro	Ala	Phe	Phe	Leu	Glu	Ser	Val	Asp	Ala	His	Leu	Gln	Ile	Gly	Pro
				245					250					255	
Leu	Lys	Lys	Ser	Cys	Ile	Ser	Val	Leu	Lys	Arg	Arg				
			260						265						

<210> 3611

<211> 816

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3611

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 60  
 agctacaaag ggatcttcca gtatgactac catgataaag tgaagccaag aaagatatc  
 120  
 caatggagac agttggaaaa cctgtacttc agagaaaaga agttttccgt ggaagttcat  
 180  
 gacccacgca gggcttcagt gacaaggagg acgtttgggc acagcggcat tgcagtgcac  
 240  
 acgtgggtatg catgtccggc attgatcaag tccatctggg ctatggccat aagccaacac  
 300  
 cagttctatc tggacagaaa gcagagtaag tccaaaatcc atgcagcacg cagcctgagt  
 360  
 gagatcgcca tcgacctgac cgagacgggg acgctgaaga cctcgaagct ggccaacatg  
 420  
 ggtagcaagg ggaagatcat cagcggcagc agcggcagcc tgctgtcttc aggttctcag  
 480  
 gaatcagata gctcgcatgc ggccaagaag gacatgctgg ctgccttgaa gtccaggcag  
 540  
 gaagctctgg aggaaaccct gcgtcagagg ctggaggaac tgaagaagct gtgtctccga  
 600  
 gaagctgagc tcacgggcaa gctgccagta gaatatcccc tggatccagg ggaggaacca  
 660  
 ccattgttc ggagaagaat aggaacagcc ttcaaactgg atgaacagaa aatcctgccc  
 720  
 aaaggagagg aagctgaact ggaacgcctg gaacgagagt ttgccattca gtcccagatt  
 780  
 acggaggccg cccgccgcct agccagtgc cccaac  
 816

&lt;210&gt; 3612

&lt;211&gt; 272

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3612

Tyr Gly Val His Tyr Tyr Ala Val Lys Asp Lys Gln Gly Ile Pro Trp  
 1 5 10 15  
 Trp Leu Gly Leu Ser Tyr Lys Gly Ile Phe Gln Tyr Asp Tyr His Asp  
 20 25 30  
 Lys Val Lys Pro Arg Lys Ile Phe Gln Trp Arg Gln Leu Glu Asn Leu  
 35 40 45  
 Tyr Phe Arg Glu Lys Lys Phe Ser Val Glu Val His Asp Pro Arg Arg  
 50 55 60  
 Ala Ser Val Thr Arg Arg Thr Phe Gly His Ser Gly Ile Ala Val His  
 65 70 75 80  
 Thr Trp Tyr Ala Cys Pro Ala Leu Ile Lys Ser Ile Trp Ala Met Ala  
 85 90 95  
 Ile Ser Gln His Gln Phe Tyr Leu Asp Arg Lys Gln Ser Lys Ser Lys  
 100 105 110  
 Ile His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu

115					120					125					
Thr	Gly	Thr	Leu	Lys	Thr	Ser	Lys	Leu	Ala	Asn	Met	Gly	Ser	Lys	Gly
130					135					140					
Lys	Ile	Ile	Ser	Gly	Ser	Ser	Gly	Ser	Leu	Leu	Ser	Ser	Gly	Ser	Gln
145					150					155					
Glu	Ser	Asp	Ser	Ser	Gln	Ser	Ala	Lys	Lys	Asp	Met	Leu	Ala	Ala	Leu
165					170					175					
Lys	Ser	Arg	Gln	Glu	Ala	Leu	Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu
180					185					190					
Glu	Leu	Lys	Lys	Leu	Cys	Leu	Arg	Glu	Ala	Glu	Leu	Thr	Gly	Lys	Leu
195					200					205					
Pro	Val	Glu	Tyr	Pro	Leu	Asp	Pro	Gly	Glu	Glu	Pro	Pro	Ile	Val	Arg
210					215					220					
Arg	Arg	Ile	Gly	Thr	Ala	Phe	Lys	Leu	Asp	Glu	Gln	Lys	Ile	Leu	Pro
225					230					235					
Lys	Gly	Glu	Glu	Ala	Glu	Leu	Glu	Arg	Leu	Glu	Arg	Glu	Phe	Ala	Ile
245					250					255					
Gln	Ser	Gln	Ile	Thr	Glu	Ala	Ala	Arg	Arg	Leu	Ala	Ser	Asp	Pro	Asn
260					265					270					

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<210> 3613
<211> 659
<212> DNA
<213> Homo sapiens
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120
cacctggatc cctgcagccc agcctggaat gcgtctggat taggggaaag acgagaaacg
180
aactccagg tgttgacagg cccaccaaag cggaagata gggcagttgc tcagaccaa
240
tactgtatct agtgcttctg ctctatctt caatcgtggg gtctctttta atgcaaagt
300
tcacaaggcc aggaattccc atgtgtgctc agttggccca cagcatcatt gtgcctagga
360
aactgcttca atttatcaag tcctctgggc tgggaatctc actgaattcc aaacggcgga
420
aagaggaaac tttcccaacc cgatgtgggt gtgacgcgag ccaggggccc caggggacact
480
gtcccagagc acaccgtccc cctttaacag caactggagc ttggattcgc tcttatattg
540
tacagtctt tcgaccattg ccctggagca cccgcacag cgacgcctc tccggccgcg
600
ctcacacaca ctcatacaca cgcacgcaaa cgcggtcgga gaagagcccc cccccccc
659

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<210> 3614
<211> 123
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 3614

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Met Gln Ser Val Thr Arg Pro Gly Ile Pro Met Cys Ala Gln Leu Ala
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His Ser Ile Ile Val Pro Arg Lys Leu Leu Gln Phe Ile Lys Ser Ser
          20           25           30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
          35           40           45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
          50           55           60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
65           70           75           80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
          85           90           95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
          100          105          110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro Pro
          115          120

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&lt;210&gt; 3615

&lt;211&gt; 1388

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3615

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nnggcagagc ctcccgaaga aaagggagcc gcgcagcgcc tacgggagtc cggcggcagc
60
agccggtacc ggcaaccacg ggcagctctc agggaatctc cgctcgtgagg ccagaggctc
120
cagtccccgc gagtccagat gcctgtccag cctccaagca aagacacaga agagatggaa
180
gcagaggggtg attctgctgc tgagatgaat ggggaggagg aagagagtga ggaggagcgg
240
agcggcagcc agacagagtc agaagaggag agctccgaga tggatgatga ggactatgag
300
cgacgccgca gcgagtgtgt cagtgagatg ctggacctag agaagcagtt ctcgagagcta
360
aaggagaagt tggttcagga acgactgagt cagctgcggt tgcggctgga ggaagtgggg
420
gctgagagag cccctgaata cacggagccc cttggggggc tgcagcggag cctcaagatt
480
cgcattcagg tggcagggat ctacaagggc ttctgtctgg atgtgatcag gaataagtac
540
gaatgtgagc tgcagggagc caaacagcac ctggagagtg agaagctgct gctctatgac
600
acgctgcagg gggagctgca ggagcggatc cagaggctgg aggaggaccg ccagagcctg
660
gacctcagct ctgaatggtg ggacgacaaa ctgcacgcca gaggcagctc caggtcttgg
720
gactccctgc cgcccagcaa gaggaagaag gcacctctgg tttctggccc atacatcgtg
780
tacatgcttc aagagatcgg catcctggag gactggacag ccatcaaaaa ggctagggca
840
gctgtgtccc ctcaagaagag aaaatcggat gacaggcgga cccacaggcc cctcagggtc
900

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tgcccagcca ggctcctgtg gtgctgctgg gccctccac tccatctggc actggcctgg  
 960  
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 1020  
 gcaaggctgc tgtctccatc cctgagccgc ctgccacctc ccactcctga agatccatct  
 1080  
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 1140  
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 1200  
 agtcagacgt gattatctgg gggctctgtcc accctggctg gatctggagg caagatgcc  
 1260  
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 1320  
 aattaaaacc tttcctggga ctctggaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1380  
 aaaaaaaaaa  
 1388

<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

Met	Pro	Val	Gln	Pro	Pro	Ser	Lys	Asp	Thr	Glu	Glu	Met	Glu	Ala	Glu
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Gly	Asp	Ser	Ala	Ala	Glu	Met	Asn	Gly	Glu	Glu	Glu	Glu	Ser	Glu	Glu
			20				25						30		
Glu	Arg	Ser	Gly	Ser	Gln	Thr	Glu	Ser	Glu	Glu	Glu	Ser	Ser	Glu	Met
			35				40					45			
Asp	Asp	Glu	Asp	Tyr	Glu	Arg	Arg	Arg	Ser	Glu	Cys	Val	Ser	Glu	Met
			50			55					60				
Leu	Asp	Leu	Glu	Lys	Gln	Phe	Ser	Glu	Leu	Lys	Glu	Lys	Leu	Phe	Arg
65					70				75					80	
Glu	Arg	Leu	Ser	Gln	Leu	Arg	Leu	Arg	Leu	Glu	Glu	Val	Gly	Ala	Glu
			85						90				95		
Arg	Ala	Pro	Glu	Tyr	Thr	Glu	Pro	Leu	Gly	Gly	Leu	Gln	Arg	Ser	Leu
			100					105					110		
Lys	Ile	Arg	Ile	Gln	Val	Ala	Gly	Ile	Tyr	Lys	Gly	Phe	Cys	Leu	Asp
			115				120					125			
Val	Ile	Arg	Asn	Lys	Tyr	Glu	Cys	Glu	Leu	Gln	Gly	Ala	Lys	Gln	His
			130			135					140				
Leu	Glu	Ser	Glu	Lys	Leu	Leu	Leu	Tyr	Asp	Thr	Leu	Gln	Gly	Glu	Leu
145				150					155					160	
Gln	Glu	Arg	Ile	Gln	Arg	Leu	Glu	Glu	Asp	Arg	Gln	Ser	Leu	Asp	Leu
			165						170				175		
Ser	Ser	Glu	Trp	Trp	Asp	Asp	Lys	Leu	His	Ala	Arg	Gly	Ser	Ser	Arg
			180				185					190			
Ser	Trp	Asp	Ser	Leu	Pro	Pro	Ser	Lys	Arg	Lys	Lys	Ala	Pro	Leu	Val
			195				200					205			
Ser	Gly	Pro	Tyr	Ile	Val	Tyr	Met	Leu	Gln	Glu	Ile	Gly	Ile	Leu	Glu
			210			215				220					
Asp	Trp	Thr	Ala	Ile	Lys	Lys	Ala	Arg	Ala	Ala	Val	Ser	Pro	Gln	Lys

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<210> 3617
<211> 804
<212> DNA
<213> Homo sapiens
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<210> 3618
<211> 148
<212> PRT
<213> Homo sapiens
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<400> 3618  
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1 . 5 10 15  
Ala Glu Glu Ile Cys Glu Ser Ser Ser Lys Met Ile Thr Phe Ile Asp

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Leu Ala Gly His His Lys Tyr Leu His Thr Thr Ile Phe Gly Leu Thr
      35      40      45
Ser Tyr Cys Pro Asp Cys Ala Leu Leu Val Ser Ala Asn Thr Gly
      50      55      60
Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys
65      70      75      80
Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr
      85      90      95
Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro
      100      105      110
Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val
      115      120      125
Thr Ala Ala Gln Gln Phe Ala Gln Ser Pro Asn Val Thr Pro Ile Phe
      130      135      140
Thr Leu Ser Ser
145

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&lt;210&gt; 3619

&lt;211&gt; 948

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3619

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acgcgtcggc agaggtggct tcgtcccgcg gagtccaggc ttcagctcct ggcttctctt
60
ctttctcctc agagatcaga tgtcggaaact ccagctgagg gcatgtctta ctgggcacgc
120
aggtgtcctc tcttgagaag aactgtccat accatgggtg tggttaaggct ttcaccagtt
180
ctcaggatgc ccatagggat ggggtgaagcc tgcctggcct gtggtgcttt ccagtggccg
240
tcatctcatt agggcccccac agtggcatta ggatgcacct .ctcggcggtg ttcaacgccc
300
tcctggtgtc ggtgctggca gcggtectgt ggaagcatgt gcggtgcgt gagcatgcag
360
ccactgga ggaggagctg gccctcagcc gacaggccac agagccagcc ccagcactga
420
ggatcgacta cccgaaggca ctgcagatcc tgatggaggg cggcacacac atggtgtgca
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660
tcaacttcgt ggagctgcct gctgctgccc tgcgcttcat gcccaagccg gtgttcgtgc
720
cagacgtggc cctcatcgcc aaccgcttca accccgacaa cctcatgcac gtctttcatg
780
acgacctgct gccactcttc tacacctgc ggcagtttcc cggcctggcc cagaggcac
840
ggctcttctt catggagggc tggggcgagg gtgcacactt cgacctctac aagctgctca
900

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gccccaaagca gcctctcctg cgggcacagc tgaagaccct gggccggc  
948

<210> 3620

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3620

Trp	Arg	Ala	Ala	His	Thr	Trp	Cys	Ala	Arg	Ala	Ala	Arg	Thr	Gln	Thr
1				5					10					15	
Ala	Ser	Ala	Ala	Ser	Ser	Gly	Ser	Ala	Thr	Pro	Thr	Arg	Leu	Arg	Ser
			20					25					30		
Ser	Ser	Ser	Ser	Met	Ala	Thr	Pro	Leu	Ser	Cys	Cys	Pro	Thr	Trp	Ala
			35				40					45			
Pro	Gly	Ala	Ser	Ser	Gln	Pro	Cys	Ser	Thr	Tyr	Pro	Pro	Trp	Arg	Thr
	50					55					60				
Thr	Thr	Leu	Ser	Thr	Ser	Thr	Ser	Trp	Ser	Cys	Leu	Leu	Leu	Pro	Cys
65					70					75				80	
Ala	Ser	Cys	Pro	Ser	Arg	Cys	Ser	Cys	Gln	Thr	Trp	Pro	Ser	Ser	Pro
				85					90					95	
Thr	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Cys	Thr	Ser	Phe	Met	Thr	Thr	Cys
			100					105					110		
Cys	His	Ser	Ser	Thr	Pro	Cys	Gly	Ser	Phe	Pro	Ala	Trp	Pro	Thr	Arg
		115					120					125			
His	Gly	Ser	Ser	Ser	Trp	Arg	Ala	Gly	Ala	Arg	Val	His	Thr	Ser	Thr
	130					135					140				
Ser	Thr	Ser	Cys	Ser	Ala	Pro	Ser	Ser	Leu	Ser	Cys	Gly	His	Ser	
145					150					155					

<210> 3621

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 3621

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ggacaagctg ttgggggtgtg agtgagctct ccagaatggc acatggctcc ggggtgcccg  
120  
ggttaaaagg aaggatttgc acaccttcca cttagggctc gggtaatccc aaacttcctc  
180  
ccttaattgg gcttgacgtg ctaaaaagca gatcggttctc tctgagggtt tcccaacagt  
240  
acctcaagaa aataacatct gttttttgta acgttccaca gtattcggaa ttggctacag  
300  
aacataataa gatccttgcc agcacattac agaataattt tggtgaacct tcttgagaat  
360  
tcagagaaac tgctgagtga ccactgaacg aaaagatcta atcttaaggc ttacgcgtgt  
420  
tccatccacc acatcagaac aatgtcgtat gtttttgtaa atgattcttc tcagactaac  
480  
gtgcccttgc tgcaagcctg tattgatggg gactttaatt attccaagcg gcttttggaa  
540

agtggttttg acccaaatat tcgtgacagc aggggcagaa caggccttca ccttgacagca  
600  
gctcgaggga atgtagacat ctgccagtta ctgcataaat tcggtgccga tcttctggcc  
660  
acagattatc aaggaaacac agctcttcac ctctgtggcc atgtggatac tatccaattt  
720  
ttggtttcca atggactcaa aattgatatt tgcaatcatc aagggtgctac ccctttagtt  
780  
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840  
caggagggtga aaggatttaa cagaggaacc cactcgaaac tggagaccat gcaaacagct  
900  
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&lt;210&gt; 3622

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3622

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		115					120					125			
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[illegible]

<210> 3623

<211> 586

<212> DNA

<213> Homo sapiens

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<210> 3624

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3624

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			20					25					30		
Arg	Asp	Ile	Thr	Lys	Glu	Glu	Ile	Ser	Lys	Phe	Ser	Lys	Ala	Glu	Trp
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<210> 3625
<211> 4799
<212> DNA
<213> Homo sapiens
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2780



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<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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Trp	Gly	Pro	Ser	Ser	Ser	Leu	Met	Ser	Glu	Ile	Ala	Asp	Leu	Thr	Tyr
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Met	Glu	Tyr	Leu	Ile	Lys	Thr	Gly	Ser	Glu	Arg	Val	Ser	Gln	Gln	Cys
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Lys	Glu	Asn	Met	Tyr	Ala	Val	Gln	Thr	Leu	Lys	Asp	Phe	Gln	Tyr	Val
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Asp	Arg	Asp	Gly	Lys	Asp	Gln	Gly	Val	Asn	Val	Arg	Glu	Lys	Ala	Lys
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Gln	Leu	Val	Ala	Leu	Leu	Arg	Asp	Glu	Asp	Arg	Leu	Arg	Glu	Glu	Arg
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Ala	His	Ala	Leu	Lys	Thr	Lys	Glu	Lys	Leu	Ala	Gln	Thr	Ala	Thr	Ala
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Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu	Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu
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Gly	Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr
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 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr  
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&lt;210&gt; 3627

&lt;211&gt; 1760

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3627

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&lt;210&gt; 3628

&lt;211&gt; 440

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3628

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 Ser Ala Val Gln Leu Glu Ser Leu Asn Lys Cys Gln Ile Phe Pro Ser  
 195 200 205  
 Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp Gln Lys  
 210 215 220  
 Tyr Gln Lys Arg Lys Phe His Cys Ala Asn Leu Thr Ser Trp Pro Arg  
 225 230 235 240  
 Trp Leu Tyr Ser Leu Tyr Asp Ala Glu Thr Leu Met Asp Arg Ile Lys  
 245 250 255  
 Lys Gln Leu Arg Glu Trp Asp Glu Asn Leu Lys Asp Asp Ser Leu Pro  
 260 265 270  
 Ser Asn Pro Ile Asp Phe Ser Tyr Arg Val Ala Ala Cys Leu Pro Ile  
 275 280 285  
 Asp Asp Val Leu Arg Ile Gln Leu Leu Lys Ile Gly Ser Ala Ile Gln  
 290 295 300  
 Arg Leu Arg Cys Glu Leu Asp Ile Met Asn Lys Cys Thr Ser Leu Cys  
 305 310 315 320  
 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe  
 325 330 335  
 Ser Leu Ser Leu Cys Gly Pro Met Ala Ala Tyr Val Asn Pro His Gly  
 340 345 350  
 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu  
 355 360 365  
 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp  
 370 375 380  
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe  
 385 390 395 400  
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr

405 410 415  
 Arg Ser Ala Leu Leu Pro Thr Ile Pro Asp Thr Glu Asp Glu Ile Ser  
 420 425 430  
 Pro Asp Lys Val Ile Leu Cys Leu  
 435 440

<210> 3629  
 <211> 695  
 <212> DNA  
 <213> Homo sapiens

<400> 3629  
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 120  
 acggcgatg ccattgctgcc cttgggcatg cgggacgccg ccgtcgcggg cctcgcctcc  
 180  
 tcactctcgc atctgctggt cctcgggctg tatcttgggc cacagccgga ctcacggcct  
 240  
 gcactgctgc cgcagttggc agcaaacgca gtgctgttcc tgtgcgggaa cgtggcagga  
 300  
 gtgtaccaca aggcgtgat ggagcgcgcc ctgcgggcca cgttccggga ggcactcagc  
 360  
 tccctgcact cagccggcg gctggacacc gagaagaagc accaggtcag ccgggcctag  
 420  
 gaaggtcaga gcagcgctcc gagggaggag ttgcttagat tacataacgg ggctcctcca  
 480  
 caagttgagt gactctgggc aggtttcttg acctgtttct tcttttgtat aaaatgtggg  
 540  
 tattgcccac cttagaaggt tgtgaggctc aaacaaacca aagcttataa aaagcacttt  
 600  
 agagcattat gatattaagt gaactcccat tcaggtgttg atactgggag tttagtcact  
 660  
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 695

<210> 3630  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 3630  
 Thr Arg Pro Leu Ser Gly Leu Val Trp Val Ala Leu Leu Ala Leu Gly  
 1 5 10 15  
 His Ala Phe Leu Phe Thr Gly Gly Val Val Ser Ala Trp Asp Gln Val  
 20 25 30  
 Ser Tyr Phe Leu Phe Val Ile Phe Thr Ala Tyr Ala Met Leu Pro Leu  
 35 40 45  
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His  
 50 55 60  
 Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro  
 65 70 75 80  
 Ala Leu Leu Pro Gln Leu Ala Ala Asn Ala Val Leu Phe Leu Cys Gly

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<210> 3631
<211> 864
<212> DNA
<213> Homo sapiens
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<210> 3632
<211> 222
<212> PRT
<213> Homo sapiens
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<400> 3632
Met Gln Tyr Leu Glu Lys Arg Lys Asn Pro Val Cys His Phe Val Thr
      1           5           10           15
Pro Leu Asp Gly Ser Val Asp Val Asp Glu His Arg Arg Pro Glu Ala

```



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                20                25                30
Ile Thr Thr Glu Gly Lys Tyr Trp Lys Ser Arg Ile Glu Ile Val Ile
      35                40                45
Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln
      50                55                60
His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu
65                70                75                80
Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu
      85                90                95
Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp
      100                105                110
Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn
      115                120                125
Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly
      130                135                140
Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro
145                150                155                160
Phe Gln Asp Leu Phe Ser Ser Ser Arg Ser Ile Phe Gly Ser Met Leu
      165                170                175
Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala
      180                185                190
Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro
      195                200                205
Asp Ser Leu Ile Ala Pro Pro Thr Ala Pro Ser Leu Ala Arg
      210                215                220

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&lt;210&gt; 3633

&lt;211&gt; 1570

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3633

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gcagaagggc tgaagtgaca ggatgttcat tgacctgtca gtggatctga aagttctcta
120
aggagagcct gggcaagcat tcttaggttg atgctggggc ccagagtagc agtgagcatc
180
ctgtgtgaag atggcatttc tcaactgatta ttggaaaagc acaagagcca cgtgctggag
240
ccattgtcca gccttgccct ggaggagcag tgtctggctt tgtccctaga ttggtccact
300
gggaaaactg gaagggccgg ggaccagccc ttgaagatca tcagcagtga ctccacaggg
360
cagctccacc tcctgatggg gaatgagacg aggccagggc tgcagaaagt ggcctcatgg
420
caggcacatc aattcgaggc ctggattgct gctttcaatt actggcatcc agaaattgtg
480
tattcagggg ggcacgatgg ccttctgagg ggctgggaca ccagggtacc cggcaaattt
540
ctcttcacca gcnaaaagac acaccatnng ggtgtgtgca gcatccagag cagccctcat
600
cgggagcaca tcctggccac gggaagctat gatgaacaca tcctactgtg ggacacacga
660

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aacatgaagc agccgttggc agatacgcc gtgcagggtg gggatatggag aatcaagtgg  
 720  
 caccctttcc accaccacct gctcctggcc gcctgcatgc acagtggctt taagatcctc  
 780  
 aactgccaaa aggcaatgga ggagaggcag gaggcgacgg tcttgacatc tcacacattg  
 840  
 cccgactcgc tgggtgatgg agccgactgg tcttggtgc tcttccgttc tctgcagcgg  
 900  
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 960  
 agcgagttgc caacaccctg tcatgaatgc agagaggata acgatgggga gggccatgcc  
 1020  
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 1080  
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 1140  
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 1200  
 gggaactgag cttgaaatca tgaagcccct tcccacaagg aaaccaggag ggagactgcg  
 1260  
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 1320  
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 1380  
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 1560  
 aaaaaaaaaa  
 1570

&lt;210&gt; 3634

&lt;211&gt; 277

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3634

Met	Val	Asn	Glu	Thr	Arg	Pro	Arg	Leu	Gln	Lys	Val	Ala	Ser	Trp	Gln
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Ala	His	Gln	Phe	Glu	Ala	Trp	Ile	Ala	Ala	Phe	Asn	Tyr	Trp	His	Pro
		20						25					30		
Glu	Ile	Val	Tyr	Ser	Gly	Gly	Asp	Asp	Gly	Leu	Leu	Arg	Gly	Trp	Asp
		35				40						45			
Thr	Arg	Val	Pro	Gly	Lys	Phe	Leu	Phe	Thr	Ser	Xaa	Lys	Thr	His	His
		50				55					60				
Xaa	Gly	Val	Cys	Ser	Ile	Gln	Ser	Ser	Pro	His	Arg	Glu	His	Ile	Leu
65					70					75				80	
Ala	Thr	Gly	Ser	Tyr	Asp	Glu	His	Ile	Leu	Leu	Trp	Asp	Thr	Arg	Asn
			85						90					95	
Met	Lys	Gln	Pro	Leu	Ala	Asp	Thr	Pro	Val	Gln	Gly	Gly	Val	Trp	Arg
			100					105					110		
Ile	Lys	Trp	His	Pro	Phe	His	His	His	Leu	Leu	Leu	Ala	Ala	Cys	Met

115 120 125  
 His Ser Gly Phe Lys Ile Leu Asn Cys Gln Lys Ala Met Glu Glu Arg  
 130 135 140  
 Gln Glu Ala Thr Val Leu Thr Ser His Thr Leu Pro Asp Ser Leu Val  
 145 150 155 160  
 Tyr Gly Ala Asp Trp Ser Trp Leu Leu Phe Arg Ser Leu Gln Arg Ala  
 165 170 175  
 Pro Ser Trp Ser Phe Pro Ser Asn Leu Gly Thr Lys Thr Ala Asp Leu  
 180 185 190  
 Lys Gly Ala Ser Glu Leu Pro Thr Pro Cys His Glu Cys Arg Glu Asp  
 195 200 205  
 Asn Asp Gly Glu Gly His Ala Arg Pro Gln Ser Gly Met Lys Pro Leu  
 210 215 220  
 Thr Glu Gly Met Arg Lys Asn Gly Thr Trp Leu Gln Ala Thr Ala Ala  
 225 230 235 240  
 Thr Thr Arg Asp Cys Gly Val Asn Pro Glu Glu Ala Asp Ser Ala Phe  
 245 250 255  
 Ser Leu Leu Ala Thr Cys Ser Phe Tyr Asp His Ala Leu His Leu Trp  
 260 265 270  
 Glu Trp Glu Gly Asn  
 275

&lt;210&gt; 3635

&lt;211&gt; 835

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3635

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 120  
 gttttactta aagatgaacc ccagcagact gctgctcaga tgggttgtgc gccaatccag  
 180  
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 240  
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 300  
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 360  
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 420  
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 480  
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 540  
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 600  
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 660  
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 720  
 ttgctggaca atggtgcaga cattgaagcc cagtctgaaa gaaccaagga cacaccactc  
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835

<210> 3636  
<211> 278  
<212> PRT  
<213> Homo sapiens

<400> 3636  
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Leu Leu Thr Pro Val Gly Val Gly Glu Gln Leu Ser Glu Gly Asp Tyr  
20 25 30  
Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln  
35 40 45  
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met  
50 55 60  
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile  
65 70 75 80  
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu  
85 90 95  
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr  
100 105 110  
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr  
115 120 125  
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser  
130 135 140  
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr  
145 150 155 160  
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr  
165 170 175  
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala  
180 185 190  
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu  
195 200 205  
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr  
210 215 220  
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile  
225 230 235 240  
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys  
245 250 255  
Asp Thr Pro Leu Ser Leu Ala Cys Ser Gly Gly Arg Gln Glu Val Val  
260 265 270  
Glu Leu Leu Leu Ala Arg  
275

<210> 3637  
<211> 2128  
<212> DNA  
<213> Homo sapiens

<400> 3637  
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120  
cctgcccaacc cctgctcttc caggtcgggc cccgggggttc tgcggctgtt agggacagag  
180  
gcaagaagg gcaggacggg ccggtttccc gtggatgttc ccgcccgaga aagacagcaa  
240  
gttgtgtgtg cggccgggac gcgggagggg aggtagccgc cggccgccag ccatggacca  
300  
tcatctttag tgcagaggat ggaaagtga tgcccagtaa gactgaagat ccattctgca  
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480  
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660  
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720  
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780  
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840  
cagtttcttg gggccttggt gattgggtgt ggctgtgcc tctaccctt gggctgggac  
900  
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960  
gaaatcggt gggcctacta ctgcacggga gcaggtgcc ctgccgccat gctgctgtgc  
1020  
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1080  
accaagagca gacagaggag aagatgggac aaaggggctt ggagaggtca aaacatccac  
1140  
ctacctcaa aagggtggat agtagttcta atccaataca atgctaataa aatgaaaccc  
1200  
gataaaatca ggaacatgat ataggaagga aggattgtag gagatttgtg ggggaaaaaa  
1260  
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1380  
acacacacac acacacacaa caaatctaca tatacaaaca agggtttggg ttttagtttt  
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acatacagac atatgcatcc ccacacacgc ctatgcacaa acgtggatta tcgcacagac  
1620  
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1680

tattatcact ttataaaaca tacattaagc ctaataaatg gaccaataag ccaaactatc  
 1740  
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 1860  
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 1920  
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 1980  
 tgttttcttt tgtccattat tgtactgtgc tgtaccacat ttatttctat attcattttg  
 2040  
 taaaaaattt aaaagtgcta ttttgtttgt atttgaaaat ctctgtgaat aaattctctc  
 2100  
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 2128

&lt;210&gt; 3638

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3638

Met	Ala	Ser	Ser	Leu	Thr	Cys	Thr	Gly	Val	Ile	Trp	Ala	Leu	Leu	Ser
1				5				10					15		
Phe	Leu	Cys	Ala	Ala	Thr	Ser	Cys	Val	Gly	Phe	Phe	Met	Pro	Tyr	Trp
			20					25					30		
Leu	Trp	Gly	Ser	Gln	Leu	Gly	Lys	Pro	Val	Ser	Phe	Gly	Thr	Phe	Arg
		35					40					45			
Arg	Cys	Ser	Tyr	Pro	Val	His	Asp	Glu	Ser	Arg	Gln	Met	Met	Val	Met
	50					55					60				
Val	Glu	Glu	Cys	Gly	Arg	Tyr	Ala	Ser	Phe	Gln	Gly	Ile	Pro	Ser	Ala
65				70						75				80	
Glu	Trp	Arg	Ile	Cys	Thr	Ile	Val	Thr	Gly	Leu	Gly	Cys	Gly	Leu	Leu
			85					90					95		
Leu	Leu	Val	Ala	Leu	Thr	Ala	Leu	Met	Gly	Cys	Cys	Val	Ser	Asp	Leu
			100					105					110		
Ile	Ser	Arg	Thr	Val	Gly	Arg	Val	Ala	Gly	Gly	Ile	Gln	Phe	Leu	Gly
			115				120					125			
Gly	Leu	Leu	Ile	Gly	Ala	Gly	Cys	Ala	Leu	Tyr	Pro	Leu	Gly	Trp	Asp
	130					135					140				
Ser	Glu	Glu	Val	Arg	Gln	Thr	Cys	Gly	Tyr	Thr	Ser	Gly	Gln	Phe	Asp
145				150						155				160	
Leu	Gly	Lys	Cys	Glu	Ile	Gly	Trp	Ala	Tyr	Tyr	Cys	Thr	Gly	Ala	Gly
			165					170					175		
Ala	Thr	Ala	Ala	Met	Leu	Leu	Cys	Thr	Trp	Leu	Ala	Cys	Phe	Ser	Gly
			180					185					190		
Lys	Lys	Gln	Lys	His	Tyr	Pro	Tyr								
		195					200								

&lt;210&gt; 3639

&lt;211&gt; 726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3639

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 60  
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 120  
 aagactaaca gtgggttatct ctacgcggga ttataaatgt tttgggtttt tttttttttt  
 180  
 tgtacatttt agtattttttt gaaatttttt taataagcgt gtattacata cagtaaacia  
 240  
 aagcacatta atgtaggcag attatcaatg ttatgcattt cactgattgc atatctcttt  
 300  
 ttttatcaat ggtgaacatt gcaaagatt gatacgtttt tcttaggaag tggcattgcc  
 360  
 acaaagtgtt tttccaacac cagcagggcc tgagagtgtc atcaccatac actcttgccc  
 420  
 gcaataaaaa aatttcacct tttaatggat ttaaaaggga aaagtggggg tgttgggttc  
 480  
 tccaggcat tcttttcatt atgagtgaaca tttttctgaa aggaacgtga tctcgttttc  
 540  
 tagccgcatg aagcatttct ccaacaagac ccactgtacc agtctggga tctccacacc  
 600  
 tgtgccttct ccctgctctt tctaggtcct gattctcacc tctgctgtg taataaccct  
 660  
 gtcatttctc ccttatccca gttccatgtc tgtgacaagc ttggaggccg agttgcaagc  
 720  
 taagat  
 726

&lt;210&gt; 3640

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3640

Met	Leu	His	Ala	Ala	Arg	Lys	Arg	Asp	His	Val	Pro	Phe	Arg	Lys	Met
1			5					10						15	
Ser	Leu	Ile	Met	Lys	Glu	Met	Pro	Trp	Arg	Thr	Gln	His	Pro	Asn	Phe
			20					25					30		
Ser	Leu	Leu	Asn	Pro	Leu	Lys	Gly	Glu	Ile	Phe	Leu	Leu	Pro	Ala	Arg
		35					40					45			
Val	Tyr	Gly	Asp	Asp	Thr	Leu	Arg	Pro	Cys	Trp	Cys	Trp	Lys	Asn	His
	50				55					60					
Leu	Trp	Gln	Cys	His	Phe	Leu	Arg	Lys	Thr	Tyr	Gln	Ser	Phe	Ala	Met
65					70				75					80	
Phe	Thr	Ile	Asp	Lys	Lys	Arg	Asp	Met	Gln	Ser	Val	Lys	Cys	Ile	Thr
			85					90						95	
Leu	Ile	Ile	Cys	Leu	His										
			100												

&lt;210&gt; 3641

&lt;211&gt; 455

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 3641  
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 120  
 agtcccgag cagtcacgcg agccgggacc ttgccccgct ggaacgcaga agcggccgtg  
 180  
 gagctcgaga cgctcgcgcg ctcacctcct gggcccctgt gcgtggggaa gtcaggaaga  
 240  
 agacgccgag tgaggtcacg gtgcccacga ggggtggattc ccctcggcct gaccacgcca  
 300  
 ggaggtggcc gaagggaaga ggggtgggca ggggctgctc tgcacctct agcagagcgg  
 360  
 catccctgca ggtgtttgct ctggcgagga gaagccccag agagcagttc gggactgtgc  
 420  
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 455

<210> 3642  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 3642  
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 35 40 45  
 Pro Leu Glu Arg Arg Ser Gly Arg Gly Ala Arg Asp Ala Arg Ala Leu  
 50 55 60  
 Thr Ser Trp Ala Pro Val Arg Gly Glu Val Arg Lys Lys Thr Pro Ser  
 65 70 75 80  
 Glu Val Thr Val Pro Thr Arg Val Asp Ser Pro Arg Pro Asp His Ala  
 85 90 95  
 Arg Arg Trp Pro Lys Gly Arg Gly Trp Gly Arg Gly Cys Ser Ala Pro  
 100 105 110  
 Ser Ser Arg Ala Ala Ser Leu Gln Val Phe Ala Leu Ala Arg Arg Ser  
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 Phe Lys Thr Arg  
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<210> 3643  
 <211> 2243  
 <212> DNA  
 <213> Homo sapiens

<400> 3643  
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 2243

<210> 3644  
 <211> 560  
 <212> PRT  
 <213> Homo sapiens

<400> 3644  
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 Asp Met Ser Asp Arg Arg Ala Val Ile Phe Ala Asp Thr Leu Thr  
 35 40 45  
 Leu Leu Phe Glu Gly Ile Ala Arg Ile Val Glu Thr His Gln Pro Ile  
 50 55 60  
 Val Glu Thr Tyr Tyr Gly Pro Gly Arg Leu Tyr Thr Leu Ile Lys Tyr  
 65 70 75 80  
 Leu Gln Val Glu Cys Asp Arg Gln Val Glu Lys Val Val Asp Lys Phe  
 85 90 95  
 Ile Lys Gln Arg Asp Tyr His Gln Gln Phe Arg His Val Gln Asn Asn  
 100 105 110  
 Leu Met Arg Asn Ser Thr Thr Glu Lys Ile Glu Pro Arg Glu Leu Asp  
 115 120 125  
 Pro Ile Leu Thr Glu Val Thr Leu Met Asn Ala Arg Ser Glu Leu Tyr  
 130 135 140  
 Leu Arg Phe Leu Lys Lys Arg Ile Ser Ser Asp Phe Glu Val Gly Asp  
 145 150 155 160  
 Ser Met Ala Ser Glu Glu Val Lys Gln Glu His Gln Lys Cys Leu Asp  
 165 170 175  
 Lys Leu Leu Asn Asn Cys Leu Leu Ser Cys Thr Met Gln Glu Leu Ile  
 180 185 190  
 Gly Leu Tyr Val Thr Met Glu Glu Tyr Phe Met Arg Glu Thr Val Asn  
 195 200 205  
 Lys Ala Val Ala Leu Asp Thr Tyr Glu Lys Gly Gln Leu Thr Ser Ser

210	215	220
Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg Ala		
225	230	235
Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu Ala		240
	245	250
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu		255
	260	265
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val		270
	275	280
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe		285
	290	295
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu		300
305	310	315
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu		320
	325	330
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile		335
	340	345
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu		350
	355	360
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr		365
	370	375
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn		380
385	390	395
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn Asp		400
	405	410
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu		415
	420	425
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp		430
	435	440
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys		445
	450	455
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp		460
465	470	475
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp		480
	485	490
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu		495
	500	505
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser		510
	515	520
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu		525
	530	535
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu		540
545	550	555
		560

&lt;210&gt; 3645

&lt;211&gt; 823

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3645

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120

tcgggttgat ttcctcatct tctatttgat gggctaactg ctctatggaa ggaagatctt  
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 720  
 gcccatcat ttgagtagta tctattggag aatttgggtga gggagccagc agctctgatg  
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<210> 3646

<211> 243

<212> PRT

<213> Homo sapiens

<400> 3646

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			20					25					30		
Thr	Glu	Pro	Pro	Ala	Asn	Leu	Asp	Arg	Leu	Ile	Pro	Met	Tyr	Lys	Gly
		35				40					45				
Ala	Lys	Ile	Gln	Gly	Gly	Ile	Leu	Pro	Gly	Ser	Tyr	His	Tyr	Leu	His
	50				55					60					
Ile	Ala	Lys	Pro	Ala	Ile	Pro	Thr	Pro	Leu	Glu	Val	Gln	Met	Ala	Gln
65				70				75						80	
Pro	Asn	Tyr	Gly	Leu	Glu	Leu	Val	Thr	Gly	Ser	Ala	Lys	Asn	Gly	Thr
			85					90					95		
Tyr	Phe	Arg	Ile	His	Ile	Asn	Lys	Tyr	Lys	Met	Val	Glu	Thr	Ile	Thr
		100					105					110			
Cys	Leu	Ser	Arg	Glu	Pro	Phe	Pro	Ala	Ser	Asn	Tyr	Ile	Arg	Leu	Phe
		115					120					125			
Gly	Gln	His	Glu	Gln	Leu	Leu	Asn	Asn	Leu	Cys	Ala	Arg	Tyr	Asp	Glu
	130					135				140					
Asn	Leu	Ile	Thr	Asp	Leu	Tyr	Ser	Tyr	Phe	Thr	Glu	Pro	Trp	Cys	Leu
145				150				155						160	
Ala	Leu	Phe	His	Asp	Arg	Phe	Ile	Asp	Leu	Arg	Lys	Glu	Leu	Arg	Gln
			165					170					175		
Ile	Leu	Ala	Ser	Lys	Glu	Glu	Glu	Asp	Leu	Pro	Ser	Ile	Glu	Gln	Leu

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                180                185                190
Ala His Gln Ile Glu Asp Glu Glu Ile Asn Pro Thr Glu Lys Pro Arg
                195                200                205
Gln Tyr Leu Lys Arg Val Phe Glu Glu Ser Ile Tyr Lys Thr Leu Val
                210                215                220
Glu Arg Ser Thr Leu Asp Tyr Leu His Tyr Asn Arg Tyr His Leu Pro
225                230                235                240
Met Tyr Ala

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&lt;210&gt; 3647

&lt;211&gt; 584

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3647

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120
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180
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240
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480
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540
cgctgctgct cttcatcctg ctactggtca ctgtcctcct ggcc
584

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&lt;210&gt; 3648

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3648

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Thr Arg Arg Ala Ser Ala Ala Pro Thr Gly Pro Phe Phe Cys Ala Thr
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Ala Trp Leu Trp Ala Arg Met Pro Leu Ser Ala Val Thr Ser His Cys
20        25        30
Val Ser Ser Arg Trp Arg Ser Pro Thr Arg Ala Pro Thr Pro Ala Thr
35        40        45
Cys Thr Thr Ile Thr Val Ala Cys Thr Asn Ala Ala Ser Ser Thr
50        55        60

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&lt;210&gt; 3649

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3649

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 180  
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 600  
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 648

&lt;210&gt; 3650

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3650

Met	Ile	Leu	Lys	Ala	Cys	His	Ser	Cys	Phe	His	Phe	His	Thr	Asp	Lys
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His	Ile	Cys	Ser	Leu	Phe	Ala	Val	Leu	Pro	Phe	Phe	Phe	Gln	Val	Ala
			20					25					30		
Ile	Ser	Ala	Asp	Val	Lys	Glu	Val	Leu	Leu	Thr	Asp	Gly	Asn	Glu	Lys
		35				40						45			
Ala	Ile	Arg	Asn	Val	Gln	Asp	Ile	Ile	Thr	Arg	Asn	Gln	Lys	Ala	Gly
	50				55					60					
Val	Phe	Lys	Thr	Gln	Lys	Ile	Ser	Ser	Cys	Val	Leu	Arg	Trp	Asp	Asn
65				70					75				80		
Glu	Thr	Asp	Val	Ser	Gln	Leu	Glu	Gly	His	Phe	Asp	Ile	Val	Met	Cys
			85					90					95		
Ala	Asp	Cys	Leu	Phe	Leu	Asp	Gln	Tyr	Arg	Ala	Ser	Leu	Val	Asp	Ala
		100					105					110			
Ile	Lys	Arg	Leu	Leu	Gln	Pro	Arg	Gly	Lys	Ala	Met	Val	Phe	Ala	Pro
		115				120						125			
Arg	Arg	Gly	Asn	Thr	Leu	Asn	Gln	Phe	Cys	Asn	Leu	Ala	Glu	Lys	Ala
		130				135				140					
Gly	Phe	Cys	Ile	Gln	Arg	His	Glu	Asn	Tyr	Asp	Glu	His	Ile	Ser	Asn
145				150					155					160	
Phe	His	Ser	Lys	Leu	Lys	Lys	Glu	Asn	Pro	Asp	Ile	Tyr	Glu	Glu	Asn

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 Leu His Tyr Pro Pro Leu Leu Ile Leu Thr Lys His Gly  
 180 185

<210> 3651  
 <211> 2469  
 <212> DNA  
 <213> Homo sapiens

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 1320

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 1380  
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 1440  
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 2040  
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 2400  
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 2460  
 aaaaaaaaaa  
 2469

&lt;210&gt; 3652

&lt;211&gt; 384

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3652

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Glu	Gly	Ala	Thr	Val	Val	Ile	Leu	Asn	Met	Pro	Lys	Gly	Thr	Glu	Phe
		20					25					30			
Gly	Ile	Asp	Tyr	Asn	Ser	Trp	Glu	Val	Gly	Pro	Lys	Phe	Arg	Gly	Val
	35					40					45				
Lys	Met	Ile	Pro	Pro	Gly	Ile	His	Phe	Leu	His	Tyr	Ser	Ser	Val	Asp



50				55				60							
Lys 65	Ala	Asn	Pro	Lys	Glu 70	Val	Gly	Pro	Arg	Met 75	Gly	Phe	Phe	Leu 80	Ser
Leu	His	Gln	Arg	Gly 85	Leu	Thr	Val	Leu	Arg 90	Trp	Ser	Thr	Leu 95	Arg	Glu
Glu	Val	Asp	Leu	Ser 100	Pro	Ala	Pro	Glu 105	Ser	Glu	Val	Glu	Ala 110	Met	Arg
Ala	Asn	Leu	Gln	Glu 115	Leu	Asp	Gln	Phe 120	Leu	Gly	Pro	Tyr	Pro 125	Tyr	Ala
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Phe	Ala	Phe	Val	Cys 260	Phe	Leu	Leu	Gly 265	Asn	Val	Tyr	Glu	Ala 270	Phe	Glu
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Gln	Leu	Gly	Glu	Ile 305	Pro	Ala	Asp	Phe 310	Phe	Val	Asp	Ile	Val 315	Ser	Gln
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Ser	Ile	Ala	Val	Asp 340	Ala	Thr	Leu	Arg 345	Lys	Lys	Ala	Glu	Lys 350	Phe	Gln
Ala	His	Leu	Thr	Lys 355	Lys	Phe	Arg	Trp 360	Asp	Phe	Ala	Ala	Glu 365	Pro	Glu
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<211> 283

<212> DNA

<213> Homo sapiens

<400> 3653

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 Ser Ser Glu Leu Arg Leu His Ile Phe Ala Asp Trp Glu Glu Gly Arg  
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<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

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			20					25					30		
Lys	Ala	Gly	Thr	Gly	Ser	Met	Arg	Ser	Gly	Phe	Pro	Ala	Lys	Ser	Ala
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Met	Trp	Arg	Tyr	Arg	Gly	Thr	Pro	Phe	Ser	Lys	Ala	Val	Glu	His	Ile
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Asn	Lys	Thr	Ile	Ala	Pro	Ala	Leu	Val	Ser	Lys	Lys	Leu	Asn	Val	Thr

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Glu	Gln	Glu	Lys	Ile	Asp	Lys	Leu	Met	Ile	Glu	Met	Asp	Gly	Thr	Glu
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Asn	Lys	Ser	Lys	Phe	Gly	Ala	Asn	Ala	Ile	Leu	Gly	Val	Ser	Leu	Ala
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Val	Cys	Lys	Ala	Gly	Ala	Val	Glu	Lys	Gly	Val	Pro	Leu	Tyr	Arg	His
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Ile	Ala	Asp	Leu	Ala	Gly	Asn	Ser	Glu	Val	Ile	Leu	Pro	Val	Pro	Ala
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Phe	Asn	Val	Ile	Asn	Gly	Gly	Ser	His	Ala	Gly	Asn	Lys	Leu	Ala	Met
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Val	Ala	Ala	Ser	Glu	Phe	Phe	Arg	Ser	Gly	Lys	Tyr	Asp	Leu	Asp	Phe
			245						250				255		
Lys	Ser	Pro	Asp	Asp	Pro	Ser	Arg	Tyr	Ile	Ser	Pro	Asp	Gln	Leu	Ala
		260						265					270		
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	275						280					285			
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Ser	Ala	Gly	Ile	Gln	Val	Val	Gly	Asp	Asp	Leu	Thr	Val	Thr	Asn	Pro
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Lys	Arg	Ile	Ala	Gln	Ala	Val	Asn	Glu	Lys	Ser	Cys	Asn	Cys	Leu	Leu
			325						330					335	
Leu	Lys	Val	Asn	Gln	Ile	Gly	Ser	Val	Thr	Glu	Ser	Leu	Gln	Ala	Cys
		340						345					350		
Lys	Leu	Ala	Gln	Ala	Asn	Gly	Trp	Gly	Val	Met	Val	Ser	His	Arg	Ser
	355						360					365			
Gly	Glu	Thr	Glu	Asp	Thr	Phe	Ile	Ala	Asp	Leu	Val	Val	Gly	Leu	Cys
	370					375					380				
Thr	Gly	Gln	Ile	Lys	Thr	Gly	Ala	Pro	Cys	Arg	Ser	Glu	Arg	Leu	Ala
385				390						395				400	
Lys	Tyr	Asn	Gln	Leu	Leu	Arg	Ile	Glu	Glu	Glu	Leu	Gly	Ser	Lys	Ala
			405					410					415		
Lys	Phe	Ala	Gly	Arg	Asn	Phe	Arg	Asn	Pro	Leu	Ala	Lys			
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&lt;210&gt; 3657

&lt;211&gt; 337

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3657

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<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

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Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
			20					25					30		
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
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Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
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Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
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<210> 3659

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<212> DNA

<213> Homo sapiens

<400> 3659

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&lt;210&gt; 3660

&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3660

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Glu	Ile	Ser	Asp	Leu	Glu	Asn	Glu	Val	Glu	Asn	Lys	Thr	Ala	Gln	Ile
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Met	Lys	Ile	Arg	Lys	Asn	Ile	Ser	Glu	Ile	Arg	Glu	Leu	Glu	Asn	Ile
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Ile Met Arg Gln Tyr Gln Glu Ala Arg Glu Thr Tyr Leu Asp Leu Asp		255
	260	265
Ser Lys Val Arg Thr Leu Lys Lys Phe Ile Lys Leu Leu Gly Glu Ile		270
	275	280
Met Glu His Arg Phe Lys Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr		285
	290	295
Leu Arg Cys Lys Leu Tyr Phe Asp Asn Leu Leu Ser Gln Arg Ala Tyr		300
305	310	315
Cys Gly Lys Met Asn Phe Asp His Lys Asn Glu Thr Leu Ser Ile Ser		320
	325	330
Val Gln Pro Gly Glu		335
	340	

&lt;210&gt; 3661

&lt;211&gt; 1117

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3661

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<210> 3662

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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Pro	Ser	Val	Tyr	Pro	Tyr	Lys	Leu	Tyr	Arg	Leu	Leu	Pro	Met	Lys	Cys
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Lys	Arg	Ala	Pro	Tyr	Lys	Ser	Tyr	Arg	Asn	Ser	Ser	Tyr	Glu	Asn	Ala
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Arg	Glu	Asn	Ser	Gln	Met	Asn	Glu	Ser	Ala	Pro	Gly	Thr	Tyr	Val	Val
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Gln	Asn	Pro	His	Ser	Ser	Glu	Leu	Pro	Thr	Leu	Asn	Phe	Gln	Asp	Thr
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Cys	Gln	Asp	Ile	Pro	Thr	Ser	Ala	Asn	Val	Gln	Asn	Ala	Glu	Gly	Thr
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Lys	Trp	Gly	Glu	Glu	Ala	Leu	Lys	Met	Asp	Leu	Asp	Asn	Asn	Phe	Tyr
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Leu	Arg	Ala	Gly	Asp	Val	Pro	Val	Leu	Ser	Leu	Ser	Asn	Ser	Ser	Glu
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Asn	Ala	Ala	Ser	Val	Ile	Ser	Tyr	Ser	Gly	Ser	Ala	Pro	Ser	Val	Ile
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Val	His	Ser	Ser	Gln	Phe	Ser	Ser	Val	Ile	Met	His	Ser	Asn	Ala	Ile
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Ser	His	Thr	Arg	Gly	Glu	Ile	Pro	Glu	Glu	Ser	Asn	Tyr	Val	Ala	Asp
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Pro	Gly	Gly	Ser	Leu	Ser	Lys	Thr	Thr	Asn	Ile	Ala	Glu	Glu	Thr	Ser
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Lys	Ile	Glu	Thr	Tyr	Ile	Ala	Lys	Pro	Ala	Leu	Pro	Gly	Thr	Ser	Thr
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Glu Ala Ile Val Lys Arg His Ile Leu Gly Ser Lys Leu Phe Tyr Lys
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Ser Glu Cys
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<210> 3663  
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 <212> DNA  
 <213> Homo sapiens

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<210> 3664  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

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20     25     30
Met Ser Asp Asn Val Asp Arg Cys Phe Glu Thr Cys Pro Pro Arg Thr
35     40     45
Phe Leu Pro Ala Leu Tyr Lys Ile Phe Leu Asp Glu Ser Ala Pro Asp
50     55     60
Asn Val Leu Glu Val Thr Ala Arg Ala Ile Thr Tyr Tyr Leu Asp Val
65     70     75     80
Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
85     90     95
Ala Leu Cys Asn Arg Leu Val Val Val Glu Leu Asn Asn Arg Thr Ser

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Ile	Thr	Tyr	Phe	Ser	Gln	Thr	Ser	Gln	Gly						
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&lt;210&gt; 3665

&lt;211&gt; 6633

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3665

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<211> 1728

<212> PRT

<213> Homo sapiens

<400> 3666

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Val	Leu	Val	Cys	Leu	Tyr	Thr	Glu	Cys	Ser	His	Ser	Ala	Leu	Arg	Arg
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Asp	Lys	Tyr	Val	Ala	Glu	Phe	Leu	Glu	Trp	Ala	Lys	Pro	Phe	Thr	Gln
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Val	Ile	Gly	Arg	Gly	Ala	Phe	Gly	Glu	Val	Ala	Val	Val	Lys	Met	Lys
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Asn	Thr	Glu	Arg	Ile	Tyr	Ala	Met	Lys	Ile	Leu	Asn	Lys	Trp	Glu	Met
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Leu	Lys	Arg	Ala	Glu	Thr	Ala	Cys	Phe	Arg	Glu	Glu	Arg	Asp	Val	Leu
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Val	Asn	Gly	Asp	Cys	Gln	Trp	Ile	Thr	Ala	Leu	His	Tyr	Ala	Phe	Gln
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Asp	Glu	Asn	His	Leu	Tyr	Leu	Val	Met	Asp	Tyr	Tyr	Val	Gly	Gly	Asp
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Leu	Leu	Thr	Leu	Leu	Ser	Lys	Phe	Glu	Asp	Lys	Leu	Pro	Glu	Asp	Met
			165						170					175	
Ala	Arg	Phe	Tyr	Ile	Gly	Glu	Met	Val	Leu	Ala	Ile	Asp	Ser	Ile	His
		180					185					190			
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	195						200					205			
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	210					215					220				
Met	Asn	Asp	Asp	Gly	Thr	Val	Gln	Ser	Ser	Val	Ala	Val	Gly	Thr	Pro

2820



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Glu	Leu	Glu	Lys	Lys	Val	Leu	Phe	Tyr	Glu	Glu	Glu	Leu	Val	Arg	Arg
		690				695					700				
Glu	Ala	Ser	His	Val	Leu	Glu	Val	Lys	Asn	Val	Lys	Lys	Glu	Val	His
705				710					715					720	
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Lys	Asp	Lys	Leu	Glu	Lys	Ser	Lys	Arg	Glu	Arg	His	Asn	Glu	Met	Glu
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Glu	Ala	Val	Gly	Thr	Ile	Lys	Asp	Lys	Tyr	Glu	Arg	Glu	Arg	Ala	Met
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Leu	Gln	Asp	Leu	Ala	Ala	Lys	Lys	Glu	Ser	Val	Ala	His	Trp	Glu	Ala
				805					810					815	
Gln	Ile	Ala	Glu	Ile	Ile	Gln	Trp	Val	Ser	Asp	Glu	Lys	Asp	Ala	Arg
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Gly	Tyr	Leu	Gln	Ala	Leu	Ala	Ser	Lys	Met	Thr	Glu	Glu	Leu	Glu	Ala
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Ala	His	Asp	Leu	Thr	Phe	Arg	Asp	Ser	Leu	Ser	Ser	Ser	Ser	Ala	Ser
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Ser	Leu	Leu	Ala	Phe	Trp	Glu	Glu	Thr	Ser	Ser	Ala	Ser	Glu	Gln	Glu
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Thr	Gln	Ala	Pro	Lys	Pro	Glu	Ala	Ser	Pro	Ser	Met	Ser	Val	Ala	Ala
		995					1000					1005			
Ser	Glu	Gln	Gln	Glu	Asp	Met	Ala	Arg	Pro	Pro	Gln	Arg	Pro	Ser	Ala
		1010				1015					1020				
Val	Pro	Leu	Pro	Thr	Thr	Gln	Ala	Leu	Ala	Leu	Ala	Gly	Pro	Lys	Pro
1025					1030					1035					1040
Lys	Ala	His	Gln	Phe	Ser	Ile	Lys	Ser	Phe	Ser	Ser	Pro	Thr	Gln	Cys
				1045					1050					1055	
Ser	His	Cys	Thr	Ser	Leu	Met	Val	Gly	Leu	Ile	Arg	Gln	Gly	Tyr	Ala
			1060					1065					1070		
Cys	Glu	Val	Cys	Ser	Phe	Ala	Cys	His	Val	Ser	Cys	Lys	Asp	Gly	Ala
		1075					1080					1085			
Pro	Gln	Val	Cys	Pro	Ile	Pro	Pro	Glu	Gln	Ser	Lys	Arg	Pro	Leu	Gly

1090 1095 1100  
 Val Asp Val Gln Arg Gly Ile Gly Thr Ala Tyr Lys Gly His Val Lys  
 1105 1110 1115 1120  
 Val Pro Lys Pro Thr Gly Val Lys Lys Gly Trp Gln Arg Ala Tyr Ala  
 1125 1130 1135  
 Val Val Cys Asp Cys Lys Leu Phe Leu Tyr Asp Leu Pro Glu Gly Lys  
 1140 1145 1150  
 Ser Thr Gln Pro Gly Val Ile Ala Ser Gln Val Leu Asp Leu Arg Asp  
 1155 1160 1165  
 Asp Glu Phe Ser Val Ser Ser Val Leu Ala Ser Asp Val Ile His Ala  
 1170 1175 1180  
 Thr Arg Arg Asp Ile Pro Cys Ile Phe Arg Val Thr Ala Ser Leu Leu  
 1185 1190 1195 1200  
 Gly Ala Pro Ser Lys Thr Ser Ser Leu Leu Ile Leu Thr Glu Asn Glu  
 1205 1210 1215  
 Asn Glu Lys Arg Lys Trp Val Gly Ile Leu Glu Gly Leu Gln Ser Ile  
 1220 1225 1230  
 Leu His Lys Asn Arg Leu Arg Asn Gln Val Val His Val Pro Leu Glu  
 1235 1240 1245  
 Ala Tyr Asp Ser Ser Leu Pro Leu Ile Lys Ala Ile Leu Thr Ala Ala  
 1250 1255 1260  
 Ile Val Asp Ala Asp Arg Ile Ala Val Gly Leu Glu Glu Gly Leu Tyr  
 1265 1270 1275 1280  
 Val Ile Glu Val Thr Arg Asp Val Ile Val Arg Ala Ala Asp Cys Lys  
 1285 1290 1295  
 Lys Val His Gln Ile Glu Leu Ala Pro Arg Glu Lys Ile Val Ile Leu  
 1300 1305 1310  
 Leu Cys Gly Arg Asn His His Val His Leu Tyr Pro Trp Ser Ser Leu  
 1315 1320 1325  
 Asp Gly Ala Glu Gly Ser Phe Asp Ile Lys Leu Pro Glu Thr Lys Gly  
 1330 1335 1340  
 Cys Gln Leu Met Ala Thr Ala Thr Leu Lys Arg Asn Ser Gly Thr Cys  
 1345 1350 1355 1360  
 Leu Phe Val Ala Val Lys Arg Leu Ile Leu Cys Tyr Glu Ile Gln Arg  
 1365 1370 1375  
 Thr Lys Pro Phe His Arg Lys Phe Asn Glu Ile Val Ala Pro Gly Ser  
 1380 1385 1390  
 Val Gln Cys Leu Ala Val Leu Arg Asp Arg Leu Cys Val Gly Tyr Pro  
 1395 1400 1405  
 Ser Gly Phe Cys Leu Leu Ser Ile Gln Gly Asp Gly Gln Pro Leu Asn  
 1410 1415 1420  
 Leu Val Asn Pro Asn Asp Pro Ser Leu Ala Phe Leu Ser Gln Gln Ser  
 1425 1430 1435 1440  
 Phe Asp Ala Leu Cys Ala Val Glu Leu Glu Ser Glu Glu Tyr Leu Leu  
 1445 1450 1455  
 Cys Phe Ser His Met Gly Leu Tyr Val Asp Pro Gln Gly Arg Arg Ala  
 1460 1465 1470  
 Arg Ala Gln Glu Leu Met Trp Pro Ala Ala Pro Val Ala Cys Ser Cys  
 1475 1480 1485  
 Ser Pro Thr His Val Thr Val Tyr Ser Glu Tyr Gly Val Asp Val Phe  
 1490 1495 1500  
 Asp Val Arg Thr Met Glu Trp Val Gln Thr Ile Gly Leu Arg Arg Ile  
 1505 1510 1515 1520  
 Arg Pro Leu Asn Ser Glu Gly Thr Leu Asn Leu Leu Asn Cys Glu Pro

	1525		1530		1535
Pro Arg Leu Ile Tyr Phe Lys Ser Lys Phe Ser Gly Ala Val Leu Asn					
	1540		1545		1550
Val Pro Asp Thr Ser Asp Asn Ser Lys Lys Gln Met Leu Arg Thr Arg					
	1555		1560		1565
Ser Lys Arg Arg Phe Val Phe Lys Val Pro Glu Glu Glu Arg Leu Gln					
	1570		1575		1580
Gln Arg Arg Glu Met Leu Arg Asp Pro Glu Leu Arg Ser Lys Met Ile					
1585		1590		1595	1600
Ser Asn Pro Thr Asn Phe Asn His Val Ala His Met Gly Pro Gly Asp					
	1605		1610		1615
Gly Met Gln Val Leu Met Asp Leu Pro Leu Ser Ala Val Pro Pro Ser					
	1620		1625		1630
Gln Glu Glu Arg Pro Gly Pro Ala Pro Thr Asn Leu Ala Arg Gln Pro					
	1635		1640		1645
Pro Ser Arg Asn Lys Pro Tyr Ile Ser Trp Pro Ser Ser Gly Gly Ser					
	1650		1655		1660
Glu Pro Ser Val Thr Val Pro Leu Arg Ser Met Ser Asp Pro Asp Gln					
1665		1670		1675	1680
Asp Phe Asp Lys Glu Pro Asp Ser Asp Ser Thr Lys His Ser Thr Pro					
	1685		1690		1695
Ser Asn Ser Ser Asn Pro Ser Gly Pro Pro Ser Pro Asn Ser Pro His					
	1700		1705		1710
Arg Ser Gln Leu Pro Leu Glu Gly Leu Glu Gln Pro Ala Cys Asp Thr					
	1715		1720		1725

&lt;210&gt; 3667

&lt;211&gt; 505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3667

tgtacattaa tctaaatacc tggattttaca ttgatattttt aatatttgta aatttcattgt  
 60  
 taattcccta tgtaacaag tttaataagt catctgtaac agtacaatta agtccatata  
 120  
 tgattgtatt tactctttct tccctactca tagtatgcgt tccattttga ggaatcacag  
 180  
 atatcgaaga gatgccagaa cactagaaga tgaagaagag atgtggttta acacagatga  
 240  
 agatgacatg gaagatggag aagctgtagt gtctccatct gacaaaacta aaaatgatga  
 300  
 tgatattatg gatccaataa gtaaattcat ggaaaggaag aaattaaaag aaagtgagga  
 360  
 aaaggaagtg cttctgaaaa caaacctttc tggacggcag agcccaagtt tcaagctttc  
 420  
 cctgtccagt ggaacgaaga ctaacctcac cagccagtca tctacaacaa atctgcctgg  
 480  
 ttctccggga tcacctggat cccca  
 505

&lt;210&gt; 3668

&lt;211&gt; 117

&lt;212&gt; PRT

<213> Homo sapiens

<400> 3668

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Met Arg Ser Ile Leu Arg Asn His Arg Tyr Arg Arg Asp Ala Arg Thr
1           5           10           15
Leu Glu Asp Glu Glu Glu Met Trp Phe Asn Thr Asp Glu Asp Asp Met
20           25           30
Glu Asp Gly Glu Ala Val Val Ser Pro Ser Asp Lys Thr Lys Asn Asp
35           40           45
Asp Asp Ile Met Asp Pro Ile Ser Lys Phe Met Glu Arg Lys Lys Leu
50           55           60
Lys Glu Ser Glu Glu Lys Glu Val Leu Leu Lys Thr Asn Leu Ser Gly
65           70           75           80
Arg Gln Ser Pro Ser Phe Lys Leu Ser Leu Ser Ser Gly Thr Lys Thr
85           90           95
Asn Leu Thr Ser Gln Ser Ser Thr Thr Asn Leu Pro Gly Ser Pro Gly
100          105          110
Ser Pro Gly Ser Pro
115

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<210> 3669

<211> 1226

<212> DNA

<213> Homo sapiens

<400> 3669

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120
ggattaatct tttacattaa tcattcactt tatgaaaacc tggatgaaga attaaatgaa
180
gaattagcag caaaagtggc tcagatgttt tatgtggctg agccaaagca agtgcccat
240
attctctgta gtccttctat gaagaatatt aatcctttaa ctgccatgag ctatctaagg
300
aagatggata cttctgggtt ttcattccatc ttagtgacac tgagcaaggc agcagtggca
360
ctgaaaatgg gagatcttga cgtgtacaga aatgaaatga aaagccatcc agagatgaag
420
ttggtgtgtg gcttcatttt ggaaccacgc ctggttgattc aacacaggaa gggacagatt
480
gttccaactg agcttgcgac tcacttgaag gagactcagc caggattgct tgtggcttca
540
gtcctgggat tgcagaagaa cagcaaaatt gggattgaag aagcagattc tttctttaag
600
gtgctttgtg gtaaggatga agataccatc cctcagctct tgatagactt ttgggaagct
660
cagctagtgg catgtctccc agatgtggta cttcaggaac tctttttcaa actcacatca
720
cagtacatct ggagattgtc taagaggcag cctcctgaca ccacaccatt gccaacatcg
780
gaggatctga taaatgcctg tagtcattat ggcttaattt atccatgggt tcacgtcgta
840

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atatcatctg attctttagc tgataaaaat tatacagaag atctttcaaa attacagtct  
 900  
 cttatatgtg gtccttcatt tgacatagct tccattattc cggtcttgga gccactttca  
 960  
 gaagacacta ttgccggcct cagtgtccat gttctgtgtc gtacacgctt gaaagagtat  
 1020  
 gaacagtgca tagacatact gttagagaga tgcccggagg cagtcattcc atatgcta  
 1080  
 catgaactga aagaagagaa ccggactctg tgggtggaaaa aactgttgcc tgaactttgt  
 1140  
 cagagaataa aatgtggtgg agagaagtat caactctacc tgtcatcatt aaaagcttaa  
 1200  
 ttttcacggg aactgtggaa gctagc  
 1226

<210> 3670

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3670

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Val	Glu	Asp	Gly	Leu	Gln	Lys	Tyr	Glu	Arg	Gly	Leu	Ile	Phe	Tyr	Ile
		20						25					30		
Asn	His	Ser	Leu	Tyr	Glu	Asn	Leu	Asp	Glu	Glu	Leu	Asn	Glu	Glu	Leu
		35					40					45			
Ala	Ala	Lys	Val	Val	Gln	Met	Phe	Tyr	Val	Ala	Glu	Pro	Lys	Gln	Val
		50				55					60				
Pro	His	Ile	Leu	Cys	Ser	Pro	Ser	Met	Lys	Asn	Ile	Asn	Pro	Leu	Thr
65					70					75				80	
Ala	Met	Ser	Tyr	Leu	Arg	Lys	Met	Asp	Thr	Ser	Gly	Phe	Ser	Ser	Ile
			85						90					95	
Leu	Val	Thr	Leu	Ser	Lys	Ala	Ala	Val	Ala	Leu	Lys	Met	Gly	Asp	Leu
			100					105						110	
Asp	Val	Tyr	Arg	Asn	Glu	Met	Lys	Ser	His	Pro	Glu	Met	Lys	Leu	Val
		115					120						125		
Cys	Gly	Phe	Ile	Leu	Glu	Pro	Arg	Leu	Leu	Ile	Gln	His	Arg	Lys	Gly
		130					135				140				
Gln	Ile	Val	Pro	Thr	Glu	Leu	Ala	Thr	His	Leu	Lys	Glu	Thr	Gln	Pro
145						150				155					160
Gly	Leu	Leu	Val	Ala	Ser	Val	Leu	Gly	Leu	Gln	Lys	Asn	Ser	Lys	Ile
			165						170					175	
Gly	Ile	Glu	Glu	Ala	Asp	Ser	Phe	Phe	Lys	Val	Leu	Cys	Gly	Lys	Asp
		180						185					190		
Glu	Asp	Thr	Ile	Pro	Gln	Leu	Leu	Ile	Asp	Phe	Trp	Glu	Ala	Gln	Leu
		195					200					205			
Val	Ala	Cys	Leu	Pro	Asp	Val	Val	Leu	Gln	Glu	Leu	Phe	Phe	Lys	Leu
		210					215					220			
Thr	Ser	Gln	Tyr	Ile	Trp	Arg	Leu	Ser	Lys	Arg	Gln	Pro	Pro	Asp	Thr
225						230				235					240
Thr	Pro	Leu	Arg	Thr	Ser	Glu	Asp	Leu	Ile	Asn	Ala	Cys	Ser	His	Tyr
						245				250				255	
Gly	Leu	Ile	Tyr	Pro	Trp	Val	His	Val	Val	Ile	Ser	Ser	Asp	Ser	Leu

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<210> 3671
<211> 828
<212> DNA
<213> Homo sapiens
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<210> 3672

<211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 3672  
 Met Ser Glu Cys Pro Leu Ile Leu Tyr Ile His Lys His Ile Asp Thr  
   1                  5                  10                  15  
 Tyr Ser Gln Ser Tyr Leu Phe Asn Asp Leu Phe Tyr Pro Val Tyr Ser  
           20                  25                  30  
 Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe Gly  
           35                  40                  45  
 Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Lys Ser Val Ile Gly Gly  
   50                  55                  60  
 Met Met Ala Gly Val Ile Gly Gln Phe Leu Ala Asn Pro Thr Asp Leu  
 65                  70                  75                  80  
 Val Lys Val Gln Met Gln Met Glu Gly Lys Arg Lys Leu Glu Gly Lys  
           85                  90                  95  
 Pro Leu Arg Phe Arg Gly Val His His Ala Phe Ala Lys Ile Leu Ala  
           100                  105                  110  
 Glu Gly Gly Ile Arg Gly Leu Trp Ala Gly Trp Val  
       115                  120

<210> 3673  
 <211> 1052  
 <212> DNA  
 <213> Homo sapiens

<400> 3673  
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 gttcattctg ggagcgctgc tgggtggcat tattatgcat gtataaagtc attcagtgt  
 120  
 gagcagtggg acagcttcaa tgatcaacat gtcagcagga taacacaaga ggacattaag  
 180  
 aaaacacatg gtggatcttc aggaagcaga ggatattatt ctagtgcttt cgcaagttcc  
 240  
 acaaatgcat atatgctgat ctatagactg aaggatccag ccagaaatgc aaaatttcta  
 300  
 gaagtggatg aatacccaga acatattaaa aacttgggtgc agaaagagag agagttggaa  
 360  
 gaacaagaaa agagacaacg agaaattgag cgcaatacat gcaagataaa attattctgt  
 420  
 ttgcatccta caaaacaagt aatgatggaa aataaattgg aggttcataa ggataagaca  
 480  
 ttaaaggaag cagtagaaat ggcttataag atgatggatt tagaagaggt aataccctg  
 540  
 gattgctgtc gccttggtta atatgatgag tttcatgatt atctagaacg gtcatatgaa  
 600  
 ggagaagaag atacaccaat ggggcttcta ctaggtggcg tcaagtcaac atatatgttt  
 660  
 gatctgctgt tggagacgag aaagcctgat cagggtttcc aatcttataa acctggaggg  
 720  
 gagccatttt acaccatttt tagttgggtc gtacttagaa ttttcctgag aaaggttttt  
 780

tttttattgt agcaatgaac ataatttaca ttttgtatat ggtcttaciaa tgtagaataa  
 840  
 ttttgacagg ttgagaagta ctcagcacca gcttggaatt aagttctaga ttacttgcaa  
 900  
 agagttgtgt acataatttt aaaaacaaca aaaaacaaca aagcttctag cttacggtct  
 960  
 tcagtggggt ttttcttctc cagtggggcg tactgaatca ttctggatgc tgtcaatccc  
 1020  
 taaagttatc aattgctctc ttaggaagat ct  
 1052

<210> 3674  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 3674  
 Xaa Ile Ser Lys Ser Gly Leu Glu Lys Asn Ser Leu Ile Tyr Glu Leu  
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 Phe Ser Val Met Val His Ser Gly Ser Ala Ala Gly Gly His Tyr Tyr  
 20 25 30  
 Ala Cys Ile Lys Ser Phe Ser Asp Glu Gln Trp Tyr Ser Phe Asn Asp  
 35 40 45  
 Gln His Val Ser Arg Ile Thr Gln Glu Asp Ile Lys Lys Thr His Gly  
 50 55 60  
 Gly Ser Ser Gly Ser Arg Gly Tyr Tyr Ser Ser Ala Phe Ala Ser Ser  
 65 70 75 80  
 Thr Asn Ala Tyr Met Leu Ile Tyr Arg Leu Lys Asp Pro Ala Arg Asn  
 85 90 95  
 Ala Lys Phe Leu Glu Val Asp Glu Tyr Pro Glu His Ile Lys Asn Leu  
 100 105 110  
 Val Gln Lys Glu Arg Glu Leu Glu Gln Glu Lys Arg Gln Arg Glu  
 115 120 125  
 Ile Glu Arg Asn Thr Cys Lys Ile Lys Leu Phe Cys Leu His Pro Thr  
 130 135 140  
 Lys Gln Val Met Met Glu Asn Lys Leu Glu Val His Lys Asp Lys Thr  
 145 150 155 160  
 Leu Lys Glu Ala Val Glu Met Ala Tyr Lys Met Met Asp Leu Glu Glu  
 165 170 175  
 Val Ile Pro Leu Asp Cys Cys Arg Leu Val Lys Tyr Asp Glu Phe His  
 180 185 190  
 Asp Tyr Leu Glu Arg Ser Tyr Glu Gly Glu Glu Asp Thr Pro Met Gly  
 195 200 205  
 Leu Leu Leu Gly Gly Val Lys Ser Thr Tyr Met Phe Asp Leu Leu Leu  
 210 215 220  
 Glu Thr Arg Lys Pro Asp Gln Val Phe Gln Ser Tyr Lys Pro Gly Gly  
 225 230 235 240  
 Glu Pro Phe Tyr Thr Ile Phe Ser Trp Ser Val Leu Arg Ile Phe Leu  
 245 250 255  
 Arg Lys Val Phe Phe Leu Leu  
 260

<210> 3675  
 <211> 837



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3675

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nntccggaga tgtgaagaag gggggcgagc ggacaggaag atgaaggag caaagctgcc
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cgccgcggga caggcgtcta ggtgaacaag aaaatgaccg aagaaacaca cccagacgat
120
gacagctata ttgtgcgtgt caaggctgtg gttatgacca gagatgactc cagcggggga
180
tggttccac aggaaggagg cgggatcagt cgcgtcgggg tctgtaaggt catgcacccc
240
gaaggcaatg gacgaagcgg ctttctcatc catggtgaac gacagaaaga caaactggtg
300
gtattggaat gctatgtaag aaaggacttg gtctacacca aagccaatcc aacgtttcat
360
cactggaagg tcgataatag gaagtttga cttactttcc aaagccctgc tgatgcccg
420
gcctttgaca ggggagtaag gaaagcaatc gaagacctta tagaagaagt agaaaatgat
480
tctggcgggc ccagaaggct cctggcctac ccactgtcct cctgtaatca gaggcccagg
540
gtgtacagct gccactgaaa aggaaaggga tctgtgacct ctggagccct gggtcggttt
600
aggccttggt ctatgggtaa gtgagtagta ggcattgtgt tacatctgat cgtggcctgg
660
agggcccttg ggcagtcagt tctcatggtg ggcttgacta gagtccacag atgcaaacac
720
aaaaattctc cactgcagca catccaggtg tcaaatcaga gggttaaaga agccatagac
780
agggccctgt gaagaaagaa atatcaagca aggcattgta ataccaaatt cagatct
837

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&lt;210&gt; 3676

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3676

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Met Thr Glu Glu Thr His Pro Asp Asp Asp Ser Tyr Ile Val Arg Val
 1             5             10             15
Lys Ala Val Val Met Thr Arg Asp Asp Ser Ser Gly Gly Trp Phe Pro
          20             25             30
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
          35             40             45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
          50             55             60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65             70             75             80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
          85             90             95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
          100            105            110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

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115 120 125  
 Asp Ser Gly Gly Pro Arg Arg Leu Leu Ala Tyr Pro Leu Ser Ser Cys  
 130 135 140  
 Asn Gln Arg Pro Arg Val Tyr Ser Cys His  
 145 150

<210> 3677  
 <211> 418  
 <212> DNA  
 <213> Homo sapiens

<400> 3677  
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 120  
 tgccgaaaga gcatggagga agatgaaagg cagacaggtc gagaacatgc agtggcgatc  
 180  
 tccttgtcac acacatcctg caaatcacag tcttgtggag atgactctca ttcgtcctcg  
 240  
 tcttctcct catcatcctc atcctcgtcc tcctcttct gacctgggaa ctcgaggagac  
 300  
 tgggatccta gctcgttctc gtcggcacat aagctctcgg gcctctggaa ttccccacat  
 360  
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 418

<210> 3678  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 3678  
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 20 25 30  
 Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp  
 35 40 45  
 Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His  
 50 55 60  
 Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser  
 65 70 75 80  
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly  
 85 90 95  
 Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu  
 100 105 110  
 Ser Gly Leu Trp Asn Ser Pro His Ser Ser Gly Ala Met Pro Gly Ser  
 115 120 125  
 Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala  
 130 135

<210> 3679  
 <211> 567

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3679

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 120  
 gagatcgag agatcaaggc ccagctggag acagccctga agtggaggaa ctatgaggtg  
 180  
 aagctgcggc tgctgctgca cctggaggaa ctgcagatgg agcatgatat ccggcactat  
 240  
 gacctggagt cgggtgcccac gacctgggac cctgtggacc agaaccaccag gctgctcacg  
 300  
 ctggagggttc ctggagtgc tgagagccgc ccctcagtgc tacggggcga ccacctgttt  
 360  
 gcccttttgt cctcggagac acaccaggag gaccccatca catataaggg ctttgtgcac  
 420  
 aaggtggaat tggaccgtgt caagctgagc tttccatga gcctcctgag ccgctttgtg  
 480  
 gatgggctga cttcaaggt gaactttacc ttcaaccgcc agccgtgag agtccagcac  
 540  
 cgtgcctggg agttgacagg gcgctgg  
 567

&lt;210&gt; 3680

&lt;211&gt; 189

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3680

Arg	Val	Lys	Gly	Tyr	Asp	Leu	Glu	Leu	Ser	Met	Ala	Leu	Gly	Thr	Tyr
1			5						10					15	
Tyr	Pro	Pro	Pro	Arg	Leu	Arg	Gln	Leu	Leu	Pro	Met	Leu	Leu	Gln	Gly
			20					25					30		
Thr	Ser	Ile	Phe	Thr	Ala	Pro	Lys	Glu	Ile	Ala	Glu	Ile	Lys	Ala	Gln
		35					40					45			
Leu	Glu	Thr	Ala	Leu	Lys	Trp	Arg	Asn	Tyr	Glu	Val	Lys	Leu	Arg	Leu
	50					55					60				
Leu	Leu	His	Leu	Glu	Glu	Leu	Gln	Met	Glu	His	Asp	Ile	Arg	His	Tyr
65				70						75				80	
Asp	Leu	Glu	Ser	Val	Pro	Met	Thr	Trp	Asp	Pro	Val	Asp	Gln	Asn	Pro
			85						90					95	
Arg	Leu	Leu	Thr	Leu	Glu	Val	Pro	Gly	Val	Thr	Glu	Ser	Arg	Pro	Ser
		100						105					110		
Val	Leu	Arg	Gly	Asp	His	Leu	Phe	Ala	Leu	Leu	Ser	Ser	Glu	Thr	His
	115					120						125			
Gln	Glu	Asp	Pro	Ile	Thr	Tyr	Lys	Gly	Phe	Val	His	Lys	Val	Glu	Leu
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 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg  
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 Lys Ala Val Pro Val Thr Ser Phe Thr Tyr Ile Asn Glu Asp Phe Arg



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&lt;213&gt; Homo sapiens

&lt;400&gt; 3688

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&lt;210&gt; 3689

&lt;211&gt; 1562

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3689

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&lt;210&gt; 3690

&lt;211&gt; 504

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3690

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&lt;211&gt; 418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3691

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<212> PRT
<213> Homo sapiens
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&lt;210&gt; 3695

&lt;211&gt; 1615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3695

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&lt;210&gt; 3696

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3696

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 Cys Asn Ser Trp Ser Ser Pro Gln Leu Gln Ser Ser Leu Pro Glu Pro  
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 His Asp Arg Pro Leu Ala Leu Pro Leu Ser Asp Ser Gln Ile Gln Trp  
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&lt;210&gt; 3697

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3697

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&lt;210&gt; 3698

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3698

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Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Val	Cys	Gln	Pro	Arg	Cys
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Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro	Gly
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Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Asp	Leu	Asn	Glu	Cys	Gly	Leu	Lys
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Pro	Arg	Pro	Cys	Lys	His	Arg	Cys	Met	Asn	Thr	Tyr	Gly	Ser	Tyr	Lys
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Cys	Tyr	Cys	Leu	Asn	Gly	Tyr	Met	Leu	Met	Pro	Asp	Gly	Ser	Cys	Ser
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Ser	Ala	Leu	Thr	Cys	Ser	Met	Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val
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Val	Lys	Gly	Gln	Ile	Arg	Cys	Gln	Cys	Pro	Ser	Pro	Gly	Leu	Gln	Leu
		130				135					140				
Ala	Pro	Asp	Gly	Arg	Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly
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 Arg Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln  
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 Asp Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser  
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 Gly His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Glu Ser Val Leu  
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&lt;210&gt; 3702

&lt;211&gt; 236

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3702

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			20					25					30		
Ser	Asn	Leu	Lys	Glu	His	Lys	Lys	Thr	His	Thr	Ala	Asp	Lys	Val	Phe
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Thr	Cys	Asp	Glu	Cys	Gly	Lys	Ser	Phe	Asn	Met	Gln	Arg	Lys	Leu	Val
	50					55					60				
Lys	His	Arg	Ile	Arg	His	Thr	Gly	Glu	Arg	Pro	Tyr	Ser	Cys	Ser	Ala
65					70				75					80	
Cys	Gly	Lys	Cys	Phe	Gly	Gly	Ser	Gly	Asp	Leu	Arg	Arg	His	Val	Arg
				85				90					95		
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Glu	Ile	Cys	Asn	Lys	Cys
			100					105					110		
Phe	Thr	Arg	Ser	Ala	Val	Leu	Arg	Arg	His	Lys	Lys	Met	His	Cys	Lys
	115					120						125			
Ala	Gly	Asp	Glu	Ser	Pro	Asp	Val	Leu	Glu	Glu	Leu	Ser	Gln	Ala	Ile
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Glu	Thr	Ser	Asp	Leu	Glu	Lys	Ser	Gln	Ser	Ser	Asp	Ser	Phe	Ser	Gln
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<212> PRT

<213> Homo sapiens

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			20					25					30		
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	35						40					45			
Lys	Glu	Leu	Tyr	Arg	Arg	Arg	Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser
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Pro	Val	His	Pro	Asp	Val	Thr	Met	Lys	Pro	Leu	Pro	Phe	Tyr	Glu	Val
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Glu Ser Gln His Tyr Gly Pro Ser Val Ile Thr Ser Leu Asp Glu Gln
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545          550          555          560
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          565          570          575
Pro Ala Pro Pro Pro Gly Arg Val Ser Ser Ile Val Ala Pro Gly Gly
          580          585          590
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&lt;210&gt; 3705

&lt;211&gt; 1737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 85 90 95  
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<212> PRT

<213> Homo sapiens

<400> 3710

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Cys	Asp	Val	Ile	Leu	Val	Ala	Gly	Asp	Arg	Arg	Ile	Pro	Ala	His	Arg
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<211> 1366

<212> DNA

<213> Homo sapiens

<400> 3711

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<212> PRT

<213> Homo sapiens

<400> 3712

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&lt;211&gt; 1719

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3713

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&lt;210&gt; 3714

&lt;211&gt; 488

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3714

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			20					25					30		
Val	Asn	Glu	Gln	His	Ser	Gly	Ser	Asp	Thr	Gly	Ser	Val	Glu	Arg	His
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Asp	Ser	Glu	Ser	Glu	Glu	Leu	His	Arg	Gln	Lys	Asp	Ser	Asp	Ser	Glu
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Pro	Gly	Ser	Asp	Ser	Glu	Asn	Glu	Glu	Leu	Leu	Asn	Gly	His	Ala	Ser
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Ala Leu Lys Pro Gln Ile Ser Asp Ser Glu Ser Glu Glu Pro Pro Arg
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His Gln Ala Ser Asp Ser Glu Asn Glu Glu Pro Pro Lys Pro Arg Met
      195      200      205
Ser Asp Ser Glu Ser Glu Glu Leu Pro Lys Pro Gln Val Ser Asp Ser
      210      215      220
Glu Ser Glu Glu Pro Pro Arg His Gln Ala Ser Asp Ser Glu Asn Glu
225      230      235      240
Glu Leu Pro Lys Pro Arg Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro
      245      250      255
Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
      260      265      270
Ile Ser Asp Ser Glu Ser Glu Asp Pro Pro Arg Asn Gln Ala Ser Asp
      275      280      285
Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg Val Ser Asp Ser Glu Ser
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Glu Gly Pro Gln Lys Gly Pro Ala Ser Asp Ser Glu Thr Glu Asp Ala
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Ser Arg His Lys Gln Lys Pro Glu Ser Asp Asp Asp Ser Asp Arg Glu
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Asn Lys Gly Glu Asp Thr Glu Met Gln Asn Asp Ser Phe His Ser Asp
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Ser His Met Asp Arg Lys Lys Phe His Ser Ser Asp Ser Glu Glu Glu
      355      360      365
Glu His Lys Lys Gln Lys Met Asp Ser Asp Glu Asp Glu Lys Glu Gly
      370      375      380
Glu Glu Glu Lys Val Ala Lys Arg Lys Ala Ala Val Leu Ser Asp Ser
385      390      395      400
Glu Asp Glu Glu Lys Ala Ser Ala Lys Lys Ser Arg Val Val Ser Asp
      405      410      415
Ala Asp Asp Ser Asp Ser Asp Ala Val Ser Asp Lys Ser Gly Lys Arg
      420      425      430
Glu Lys Thr Ile Ala Ser Asp Ser Glu Glu Glu Ala Gly Lys Glu Leu
      435      440      445
Ser Asp Lys Lys Asn Glu Glu Lys Asp Leu Phe Gly Ser Asp Ser Glu
      450      455      460
Ser Gly Asn Glu Glu Glu Asn Leu Ile Ala Asp Ile Phe Gly Glu Ser
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Gly Asp Glu Glu Glu Glu Glu Phe
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&lt;210&gt; 3715

&lt;211&gt; 288

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3715

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120

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 <211> 96  
 <212> PRT  
 <213> Homo sapiens

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 Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile Asp Gln Arg Lys Lys  
 50 55 60  
 Met Leu Lys Asn Leu Arg Asn Thr Asn Tyr Asp Val Phe Glu Lys Ile  
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 <213> Homo sapiens

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&lt;210&gt; 3718

&lt;211&gt; 374

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3718

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Gly	Ile	Leu	Leu	Glu	Pro	Cys	Ser	Asp	Arg	Gly	Asp	Ser	Glu	Asp	Gly
			20					25					30		
Cys	Leu	Glu	Arg	Glu	Glu	Tyr	Leu	Leu	Phe	Asp	Ser	Asp	Lys	Leu	Ser
			35				40					45			
His	Leu	Ile	Leu	Asp	Ser	Ser	Ser	Lys	Ile	Cys	Asp	Leu	Asn	Ala	Asn
			50				55				60				
Thr	Glu	Ser	Glu	Val	Pro	Gly	Gly	Gln	Ser	Val	Gly	Val	Gln	Gly	Glu
65					70				75					80	
Ala	Ala	Cys	Val	Ser	Ile	Pro	His	Leu	Asp	Leu	Lys	Asn	Val	Ser	Asp
			85					90						95	
Gly	Asp	Lys	Trp	Glu	Glu	Pro	Phe	Pro	Ala	Phe	Lys	Ser	Trp	Gln	Glu
			100					105						110	
Asp	Ser	Glu	Ser	Gly	Glu	Ala	Gln	Leu	Ser	Pro	Gln	Ala	Gly	Arg	Met
			115				120					125			
Asn	His	His	Pro	Leu	Glu	Glu	Asp	Cys	Pro	Pro	Val	Leu	Ser	His	Arg

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 145 150 155 160  
 Leu Asp Ser Ser Ser Lys Ala Leu Ser Phe Thr Arg Ile Arg Arg Ser  
 165 170 175  
 Ser Phe Ser Ser Lys Asp Glu Lys Arg Glu Asp Arg Thr Pro Tyr Gln  
 180 185 190  
 Leu Val Lys Lys Leu Gln Lys Lys Ile Arg Gln Phe Glu Glu Gln Phe  
 195 200 205  
 Glu Arg Glu Arg Asn Ser Lys Pro Ser Tyr Ser Asp Ile Ala Ala Asn  
 210 215 220  
 Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln  
 225 230 235 240  
 Ile Lys Asp Ala Lys His Lys Asn Ser Asp Gly Glu Phe Val Pro Gln  
 245 250 255  
 Thr Arg Pro Arg Ser Asn Thr Leu Pro Lys Ser Phe Gly Ser Ser Leu  
 260 265 270  
 Asp His Glu Asp Glu Glu Asn Glu Asp Glu Pro Lys Val Ile Gln Lys  
 275 280 285  
 Glu Lys Lys Pro Ser Lys Glu Ala Thr Leu Glu Leu Ile Leu Lys Arg  
 290 295 300  
 Leu Lys Glu Lys Arg Ile Glu Arg Cys Leu Pro Glu Asp Ile Lys Lys  
 305 310 315 320  
 Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser  
 325 330 335  
 Leu Leu Tyr Tyr Glu Ser Gln His Gly Arg Pro Val Thr Lys Glu Glu  
 340 345 350  
 Arg His Ile Val Lys Pro Leu Tyr Asp Arg Tyr Arg Leu Val Lys Gln  
 355 360 365  
 Met Leu Thr Arg Ala Ser  
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&lt;210&gt; 3719

&lt;211&gt; 422

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3719

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                   20                  25                  30  
 Asn Gln Lys Lys Phe Glu Cys Asn Ser Arg Gln Pro Gly Cys Lys Asn  
           35                  40                  45  
 Val Cys Phe Asp Asp Phe Phe Pro Ile Ser Gln Val Arg Leu Trp Ala  
   50                  55                  60  
 Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Leu Val Val Leu His  
  65                  70                  75                  80  
 Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr  
                   85                  90                  95  
 Val Ser Pro Gly Thr Met Asp Gly Gly Leu Trp Tyr Ala Tyr Leu Ile  
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<210> 3721  
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2340



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<210> 3722

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 3722

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Glu	Arg	Lys	Lys	Arg	Leu	Gln	Leu	Tyr	Val	Phe	Val	Met	Arg	Cys	Ile
			20					25					30		
Ala	Tyr	Pro	Phe	Asn	Ala	Lys	Gln	Pro	Thr	Asp	Met	Ala	Arg	Arg	Gln
			35				40					45			
Gln	Lys	Ile	Ser	Lys	Gln	Gln	Leu	Gln	Thr	Val	Lys	Asp	Arg	Phe	Gln
	50				55					60					
Ala	Phe	Leu	Asn	Gly	Glu	Thr	Gln	Ile	Met	Ala	Asp	Glu	Ala	Phe	Met
65					70					75					80
Asn	Ala	Val	Gln	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val
			85						90					95	
Ala	Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Ser	Arg	Glu
			100					105					110		
Val	Phe	Lys	Lys	His	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile
			115				120					125			
Asp	Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Met	Ala	Lys	Phe
	130					135					140				
Asp	Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Pro	Arg	Lys	Gln	Gln	Ala	Arg
145					150					155					160
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[illegible]

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 Arg Asn Gly Val Arg Gly Cys His Arg His Leu Cys Tyr Leu Arg Asp  
 625 630 635 640  
 Leu Leu Glu Arg Ala Glu Asn Gly Ala Met Ile Asp Pro Thr Leu Leu  
 645 650 655  
 His Tyr Ser Phe Ala Phe Cys Ala Ser His Val His Gly Asn Arg Pro  
 660 665 670  
 Asp Gly Ile Gly Thr Val Thr Val Glu Glu Lys Glu Arg Phe Glu Glu  
 675 680 685  
 Ile Lys Glu Arg Leu Arg Val Leu Leu Glu Asn Gln Ile Thr His Phe  
 690 695 700  
 Arg Tyr Cys Phe Pro Phe Gly Arg Pro Glu Gly Ala Leu Lys Ala Thr  
 705 710 715 720  
 Leu Ser Leu Leu Glu Arg Val Leu Met Lys Asp Ile Val Thr Pro Val  
 725 730 735  
 Pro Gln Glu Glu Val Lys Thr Val Ile Arg Lys Cys Leu Glu Gln Ala  
 740 745 750  
 Ala Leu Val Asn Tyr Ser Arg Leu Ser Glu Tyr Ala Lys Ile Glu Glu  
 755 760 765  
 Asn Gln Lys Asp Ala Glu Asn Val Gly Arg Leu Ile Thr Pro Ala Lys  
 770 775 780  
 Lys Leu Glu Asp Thr Ile Arg Leu Ala Glu Leu Val Ile Glu Val Leu  
 785 790 795 800  
 Gln Gln Asn Glu Glu His His Ala Glu Pro His Val Asp Lys Gly Glu  
 805 810 815  
 Ala Phe Ala Trp Trp Ser Asp Leu Met Val Glu His Ala Glu Thr Phe  
 820 825 830  
 Leu Ser Leu Phe Ala Val Asp Met Asp Ala Ala Leu Glu Val Gln Pro  
 835 840 845  
 Pro Asp Thr Trp Asp Ser Phe Pro Leu Phe Gln Leu Leu Asn Asp Phe  
 850 855 860  
 Leu Arg Thr Asp Tyr Asn Leu Cys Asn Gly Lys Phe His Lys His Leu  
 865 870 875 880  
 Gln Asp Leu Phe Ala Pro Leu Val Val Arg Tyr Val Asp Leu Met Glu  
 885 890 895  
 Ser Ser Ile Ala Gln Ser Ile His Arg Gly Phe Glu Arg Glu Ser Trp  
 900 905 910  
 Glu Pro Val Asn Asn Gly Ser Gly Thr Ser Glu Asp Leu Phe Trp Lys  
 915 920 925  
 Leu Asp Ala Leu Gln Thr Phe Ile Arg Asp Leu His Trp Pro Glu Glu  
 930 935 940  
 Glu Phe Gly Lys His Leu Glu Gln Arg Leu Lys Leu Met Ala Ser Asp  
 945 950 955 960  
 Met Ile Glu Ser Cys Val Lys Arg Thr Arg Ile Ala Phe Glu Val Lys  
 965 970 975  
 Leu Gln Lys Thr Ser Arg Ser Thr Asp Phe Arg Val Pro Gln Ser Ile  
 980 985 990  
 Cys Thr Met Phe Asn Val Met Val Asp Ala Lys Ala Gln Ser Thr Lys  
 995 1000 1005  
 Leu Cys Ser Met Glu Met Gly Gln Glu Phe Ala Lys Met Trp His Gln  
 1010 1015 1020  
 Tyr His Ser Lys Ile Asp Glu Leu Ile Glu Glu Thr Val Lys Glu Met

1025                      1030                      1035                      1040  
 Ile Thr Leu Leu Val Ala Lys Phe Val Thr Ile Leu Glu Gly Val Leu  
                          1045                      1050                      1055  
 Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu  
                          1060                      1065                      1070  
 Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro  
                          1075                      1080                      1085  
 Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln  
                          1090                      1095                      1100  
 Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu  
 1105                      1110                      1115                      1120  
 Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu  
                          1125                      1130                      1135  
 Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu  
                          1140                      1145                      1150  
 Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val  
                          1155                      1160                      1165  
 Leu Asp Ser Thr Leu Asn Ser Lys Thr Tyr Glu Thr Ile Arg Asn Arg  
                          1170                      1175                      1180  
 Leu Thr Val Glu Glu Ala Thr Ala Ser Val Ser Glu Gly Gly Gly Leu  
 1185                      1190                      1195                      1200  
 Gln Gly Ile Ser Met Lys Asp Ser Asp Glu Glu Asp Glu Glu Asp Asp  
                          1205                      1210                      1215

&lt;210&gt; 3723

&lt;211&gt; 830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3723

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 aaccccaacg agaagctgaa ggtgaacttt gggaccccag agttcctgtc acctgaggtg  
 180  
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 240  
 atgctgctga gcggcctctc ccccttctctg ggagatgatg acacagagac cctaaacaac  
 300  
 gttctatctg gcaactggta ctttgatgaa gagacctttg aggccgtatc agacgaggcc  
 360  
 aaagactttg tctccaacct catcgtcaag gaccagaggg cccggatgaa cgctgcccag  
 420  
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 660  
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 720

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 <211> 203  
 <212> PRT  
 <213> Homo sapiens

<400> 3724  
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 20 25 30  
 Asp Phe Gly Leu Ala Arg Arg Tyr Asn Pro Asn Glu Lys Leu Lys Val  
 35 40 45  
 Asn Phe Gly Thr Pro Glu Phe Leu Ser Pro Glu Val Val Asn Tyr Asp  
 50 55 60  
 Gln Ile Ser Asp Lys Thr Asp Met Trp Ser Met Gly Val Ile Thr Tyr  
 65 70 75 80  
 Met Leu Leu Ser Gly Leu Ser Pro Phe Leu Gly Asp Asp Asp Thr Glu  
 85 90 95  
 Thr Leu Asn Asn Val Leu Ser Gly Asn Trp Tyr Phe Asp Glu Glu Thr  
 100 105 110  
 Phe Glu Ala Val Ser Asp Glu Ala Lys Asp Phe Val Ser Asn Leu Ile  
 115 120 125  
 Val Lys Asp Gln Arg Ala Arg Met Asn Ala Ala Gln Cys Leu Ala His  
 130 135 140  
 Pro Trp Leu Asn Asn Leu Ala Glu Lys Ala Lys Arg Cys Asn Arg Arg  
 145 150 155 160  
 Leu Lys Ser Gln Ile Leu Leu Lys Lys Tyr Leu Met Lys Arg Arg Trp  
 165 170 175  
 Lys Lys Asn Phe Ile Ala Val Ser Ala Ala Asn Arg Phe Lys Lys Ile  
 180 185 190  
 Ser Ser Ser Gly Ala Leu Met Ala Leu Gly Val  
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<210> 3725  
 <211> 1244  
 <212> DNA  
 <213> Homo sapiens

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 gaccatcttc acttttgttt tcaggccttt aaaattgtgc cctacaacac agagaccctt  
 180  
 gataaactgc taaccgaatc cctgaagaac aatatccctg caagcggact gcacctcttt  
 240  
 ggaatcaacc agctggaaga agaagatatg atgacaaatc agagggatga agagctgccc  
 300

accctgttgc attttgetgc gaagtatgga ctgaagaacc tcactgcctt gttgctcacc  
 360  
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 420  
 atcgctgaga aacacggctt cagggacctg cggcagttca tcgacgagta tgtggaaacg  
 480  
 gtggacatgc tcaagagtca cattaaagag gaactgatgc acggggagga ggctgatgct  
 540  
 gtgtacgagt ccatggccca ctttccaca gacctgctta tgaaatgctc gctcaacccc  
 600  
 ggctgtgacg aggatctcta tgagtccatg gctgcctttg tcccagctgc cactgaagac  
 660  
 ctctatgttg aaatgcttca ggccagtaca tctaaccxaa tccctggaga tggtttctct  
 720  
 cgggccacta aggactctat gatccgcaag tttttagaag gcaacagcat gggaatgacc  
 780  
 aatctggaga gagatcagtg ccatcttggt caggaagaag atgtttatca cacgggtggat  
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 960  
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 1244

&lt;210&gt; 3726

&lt;211&gt; 325

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3726

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Gly	His	Val	Ile	Ser	Ala	His	Gly	Leu	Ser	Val	Leu	Asn	Leu	Arg	Asp
		20						25					30		
Gly	Arg	Glu	Leu	Asp	Phe	Arg	Ser	Asp	His	Leu	His	Phe	Cys	Phe	Gln
		35					40					45			
Ala	Phe	Lys	Ile	Val	Pro	Tyr	Asn	Thr	Glu	Thr	Leu	Asp	Lys	Leu	Leu
	50					55					60				
Thr	Glu	Ser	Leu	Lys	Asn	Asn	Ile	Pro	Ala	Ser	Gly	Leu	His	Leu	Phe
65				70					75					80	
Gly	Ile	Asn	Gln	Leu	Glu	Glu	Glu	Asp	Met	Met	Thr	Asn	Gln	Arg	Asp
			85					90					95		
Glu	Glu	Leu	Pro	Thr	Leu	Leu	His	Phe	Ala	Ala	Lys	Tyr	Gly	Leu	Lys
			100					105					110		
Asn	Leu	Thr	Ala	Leu	Leu	Leu	Thr	Cys	Pro	Gly	Ala	Leu	Gln	Ala	Tyr

115 120 125  
 Ser Val Ala Asn Lys His Gly His Tyr Pro Asn Thr Ile Ala Glu Lys  
 130 135 140  
 His Gly Phe Arg Asp Leu Arg Gln Phe Ile Asp Glu Tyr Val Glu Thr  
 145 150 155 160  
 Val Asp Met Leu Lys Ser His Ile Lys Glu Glu Leu Met His Gly Glu  
 165 170 175  
 Glu Ala Asp Ala Val Tyr Glu Ser Met Ala His Leu Ser Thr Asp Leu  
 180 185 190  
 Leu Met Lys Cys Ser Leu Asn Pro Gly Cys Asp Glu Asp Leu Tyr Glu  
 195 200 205  
 Ser Met Ala Ala Phe Val Pro Ala Ala Thr Glu Asp Leu Tyr Val Glu  
 210 215 220  
 Met Leu Gln Ala Ser Thr Ser Asn Pro Ile Pro Gly Asp Gly Phe Ser  
 225 230 235 240  
 Arg Ala Thr Lys Asp Ser Met Ile Arg Lys Phe Leu Glu Gly Asn Ser  
 245 250 255  
 Met Gly Met Thr Asn Leu Glu Arg Asp Gln Cys His Leu Gly Gln Glu  
 260 265 270  
 Glu Asp Val Tyr His Thr Val Asp Asp Asp Glu Ala Phe Ser Val Asp  
 275 280 285  
 Leu Ala Ser Arg Pro Pro Val Pro Val Pro Arg Pro Glu Thr Thr Ala  
 290 295 300  
 Pro Gly Ala His Gln Leu Pro Asp Asn Glu Pro Tyr Ile Phe Lys Gly  
 305 310 315 320  
 Lys Tyr Gly Arg Glu  
 325

&lt;210&gt; 3727

&lt;211&gt; 630

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3727

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 60  
 actcgcccca cccactggt gactgccggg ccccttgtga ccccaactcc agcagggacc  
 120  
 ctcgaccccg ctgagaaaca agaaacaggc tgtcctcctt tgggtctgga gtcctgcga  
 180  
 gtttcagata gccggcttga ggcattccagc agccagtcct ttggtcttgg accacaccga  
 240  
 ggacggctca acattcagtc aggcctggag gacggcgatc tatatgatgg agcctggtgt  
 300  
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 360  
 tcgggtgtta tcacacaggg caggaactct gtctggaggt atgactgggt cacatcatac  
 420  
 aaggtccagt tcagcaatga cagtcggacc tgggtgggaa gtaggaacca cagcagtggt  
 480  
 atggacgcag tatttcctgc caattcagac ccagaaactc cagtgtgaa cctcctgccg  
 540  
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 600



ccttgccctcc gggcagagat cctggcctgc  
630

<210> 3728  
<211> 210  
<212> PRT  
<213> Homo sapiens

<400> 3728  
Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys  
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Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu  
35 40 45  
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser  
50 55 60  
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg  
65 70 75 80  
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp  
85 90 95  
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val  
100 105 110  
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg  
115 120 125  
Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe  
130 135 140  
Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly  
145 150 155 160  
Met Asp Ala Val Phe Pro Ala Asn Ser Asp Pro Glu Thr Pro Val Leu  
165 170 175  
Asn Leu Leu Pro Glu Pro Gln Val Ala Arg Phe Ile Arg Leu Leu Pro  
180 185 190  
Gln Thr Trp Leu Gln Gly Gly Ala Pro Cys Leu Arg Ala Glu Ile Leu  
195 200 205  
Ala Cys  
210

<210> 3729  
<211> 1552  
<212> DNA  
<213> Homo sapiens

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120  
atcaagttat cagcagatgt caaaccattt gtccccagat ttgccgggct caatgtggca  
180  
tggttagagt cctcagaagc atgtgtcttc cccagctctg cagccacata ctatccgttt  
240  
gttcaggaac caccagtgc agagcagaaa atatatactg aagacatggc ctttgagct  
300

tcaacttttc cacctcagta tttatcttct gagataactc ttcattccata tgcctattct  
 360  
 ccttatacc ttgactccac acagaatgtt tactcagtgc ctggctccca gtatctttat  
 420  
 aaccaaccca gttgttaccg aggttttcaa acagtgaagc atcgaaatga gaacacatgc  
 480  
 cctctccac aagaaatgaa agctctgttt aagaagaaaa cctatgatga gaaaaaacg  
 540  
 tatgatcagc aaaagtttga cagtgaagg gctgatggaa ctatatcatc tgagataaaa  
 600  
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 660  
 taccataagc gaacagacag gaaatccaga atcattgcaa aaaatgtatc tacctccaaa  
 720  
 cctgagtttg aatttaccac actggacttt cctgaactgc aaggtgcaga gaacaatatg  
 780  
 tcagagatac agaagcaacc caagtgggga cctgtccact ctgtctctac cgacatttct  
 840  
 cttctaagag aagtagtaaa accagctgca gtgttatcaa agggtgaaat agtggtgaaa  
 900  
 aataacccaa atgaatctgt aactgctaata gccgctacca attctccttc atgtacaaga  
 960  
 gagttatctt ggacaccaat gggttatgtt gttcgacaga cattatctac agaactgtca  
 1020  
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 1080  
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 1140  
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 1200  
 caaatgaag cctcaagaaa gaataagaaa aagaaagaaa aatctacatc aaaatatgaa  
 1260  
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 1320  
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 1500  
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 1552

&lt;210&gt; 3730

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3730

Met	Ala	Phe	Gly	Ala	Ser	Thr	Phe	Pro	Pro	Gln	Tyr	Leu	Ser	Ser	Glu
1				5					10					15	
Ile	Thr	Leu	His	Pro	Tyr	Ala	Tyr	Ser	Pro	Tyr	Thr	Leu	Asp	Ser	Thr
			20					25					30		
Gln	Asn	Val	Tyr	Ser	Val	Pro	Gly	Ser	Gln	Tyr	Leu	Tyr	Asn	Gln	Pro

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      35      40      45
Ser Cys Tyr Arg Gly Phe Gln Thr Val Lys His Arg Asn Glu Asn Thr
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Cys Pro Leu Pro Gln Glu Met Lys Ala Leu Phe Lys Lys Lys Thr Tyr
  65      70      75      80
Asp Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp Ser Glu Arg Ala
      85      90      95
Asp Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg Gly Ser His His
      100      105      110
Leu Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp Gly Tyr His Lys
      115      120      125
Arg Thr Asp Arg Lys Ser Arg Ile Ile Ala Lys Asn Val Ser Thr Ser
      130      135      140
Lys Pro Glu Phe Glu Phe Thr Thr Leu Asp Phe Pro Glu Leu Gln Gly
  145      150      155      160
Ala Glu Asn Asn Met Ser Glu Ile Gln Lys Gln Pro Lys Trp Gly Pro
      165      170      175
Val His Ser Val Ser Thr Asp Ile Ser Leu Leu Arg Glu Val Val Lys
      180      185      190
Pro Ala Ala Val Leu Ser Lys Gly Glu Ile Val Val Lys Asn Asn Pro
      195      200      205
Asn Glu Ser Val Thr Ala Asn Ala Ala Thr Asn Ser Pro Ser Cys Thr
      210      215      220
Arg Glu Leu Ser Trp Thr Pro Met Gly Tyr Val Val Arg Gln Thr Leu
  225      230      235      240
Ser Thr Glu Leu Ser Ala Ala Pro Lys Asn Val Thr Ser Met Ile Asn
      245      250      255
Leu Lys Thr Ile Ala Ser Ser Ala Asp Pro Lys Asn Val Ser Ile Pro
      260      265      270
Ser Ser Glu Ala Leu Ser Ser Asp Pro Ser Tyr Asn Lys Glu Lys His
      275      280      285
Ile Ile His Pro Thr Gln Lys Ser Lys Ala Ser Gln Gly Ser Asp Leu
      290      295      300
Glu Gln Asn Glu Ala Ser Arg Lys Asn Lys Lys Lys Lys Glu Lys Ser
  305      310      315      320
Thr Ser Lys Tyr Glu Val Leu Thr Val Gln Glu Pro Pro Arg Ile Glu
      325      330      335
Asp Ala Glu Glu Phe Pro Asn Leu Ala Val Ala Ser Glu Arg Arg Asp
      340      345      350
Arg Ile Glu Thr Pro Lys Phe Gln Ser Lys Gln Gln Pro Gln Asp Asn
      355      360      365
Phe Lys Asn Asn Val Lys Lys Ser Gln Leu Pro Val Gln Leu Asp Leu
      370      375      380
Gly Gly Met Leu Thr Ala Leu Glu Lys Lys Gln His Ser Gln His Ala
  385      390      395      400
Lys Gln Ser Ser Lys Pro Val Val Val Ser Val Gly Ala Val Pro Val
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Leu Ser Lys Glu Cys Ala
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&lt;210&gt; 3731

&lt;211&gt; 1704

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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120  
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180  
ggcatgctct gcagtttccg gatccctggg gcctgggcct gtgcctgggc cctgaatata  
240  
caagcaaata actgcttcag tacaggcttg tctcggcggg tcctgttgac caacgtggg  
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360  
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420  
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480  
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600  
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660  
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720  
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960  
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1080  
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<210> 3732  
 <211> 281  
 <212> PRT  
 <213> Homo sapiens

<400> 3732  
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 20 25 30  
 Glu Gly Ile Thr Asp Ala Ser Ser Cys Ala Val Leu Leu Pro Ala Ser  
 35 40 45  
 Leu Phe Val Asn Ser His Pro Gly Ile Asp Arg Pro Gly Met Leu Cys  
 50 55 60  
 Ser Phe Arg Ile Pro Gly Ala Trp Ser Cys Ala Trp Ser Leu Asn Ile  
 65 70 75 80  
 Gln Ala Asn Asn Cys Phe Ser Thr Gly Leu Ser Arg Arg Val Leu Leu  
 85 90 95  
 Thr Asn Val Val Thr Gly His Arg Gln Ser Phe Gly Thr Asn Ser Asp  
 100 105 110  
 Val Leu Ala Gln Gln Phe Ala Leu Met Ala Pro Leu Leu Phe Asn Gly  
 115 120 125  
 Cys Arg Ser Gly Glu Ile Phe Ala Ile Asp Leu Arg Cys Gly Asn Gln  
 130 135 140  
 Gly Lys Gly Trp Lys Ala Thr Arg Leu Phe His Asp Ser Ala Val Thr  
 145 150 155 160  
 Ser Val Arg Ile Leu Gln Asp Glu Gln Tyr Leu Met Ala Ser Asp Met  
 165 170 175  
 Ala Gly Lys Ile Lys Leu Trp Asp Leu Arg Thr Thr Lys Cys Val Arg  
 180 185 190  
 Gln Tyr Glu Gly His Val Asn Glu Tyr Ala Tyr Leu Pro Leu His Val  
 195 200 205  
 His Glu Glu Glu Gly Ile Leu Val Ala Val Gly Gln Asp Cys Tyr Thr  
 210 215 220  
 Arg Ile Trp Ser Leu His Asp Ala Arg Leu Leu Arg Thr Ile Pro Ser  
 225 230 235 240  
 Pro Tyr Pro Ala Ser Lys Ala Asp Ile Pro Ser Val Ala Phe Ser Ser  
 245 250 255  
 Arg Leu Gly Gly Ser Arg Gly Ala Pro Gly Leu Leu Met Ala Val Gly  
 260 265 270  
 Gln Asp Leu Tyr Cys Tyr Ser Tyr Ser  
 275 280

<210> 3733  
 <211> 515  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 300  
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 360  
 nccagcccg gttcccggac gccgcgggac tggagtgcga gccggtgttg gacgtggagc  
 420  
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<210> 3734  
 <211> 171  
 <212> PRT  
 <213> Homo sapiens

<400> 3734  
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 20 25 30  
 Gly Lys Asp Pro Gly Ser Ala Pro Ser Ser Val Arg Glu Arg Glu Thr  
 35 40 45  
 Pro Gly Ala Xaa Pro Cys Leu Pro Arg Arg Gly Trp Cys Val Pro Gly  
 50 55 60  
 Asp Val Arg Ser Ser Pro Pro Leu Pro Gly Trp Cys Ala Leu Ser Asp  
 65 70 75 80  
 Val Arg Ser Arg Gly Arg Ser Cys Pro Ser Ala Pro Lys Ala Ala Gly  
 85 90 95  
 Gly Leu Arg Ala Trp Gly Arg Gly Ser Gly Ala Ala Arg Ala Pro Ala  
 100 105 110  
 Pro Ala Pro Ser Pro Ser Ser Gly Xaa Ser Pro Ser Ser Arg Thr Pro  
 115 120 125  
 Arg Asp Trp Ser Ala Ser Arg Cys Trp Thr Trp Ser Gly Ala Ala Thr  
 130 135 140  
 Ala Pro Thr Pro Phe Ser Pro Ala Gln Gln Pro Pro Ser Ser His Asp  
 145 150 155 160  
 Gly Leu Ser Leu Asp Pro Ser Gln Leu Glu Pro  
 165 170

<210> 3735  
 <211> 2512  
 <212> DNA  
 <213> Homo sapiens

<400> 3735  
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180  
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360  
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420  
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720  
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780  
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840  
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caactgcata ctttgaggcc tacaggcacg tccctggaagg actccaggag gtccaggagg  
1020  
aagatgttcc cttccagagg aatatcgtag agtgtaactc tcatgtgaag gagccaagg  
1080  
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1140  
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1380  
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1440  
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 1860  
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 1920  
 aagctgacct gattcaagca gaccgggtga ttgaggagga agaggtggtg agggccagc  
 1980  
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 2160  
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 2280  
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 2340  
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 2400  
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&lt;210&gt; 3736

&lt;211&gt; 155

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3736

Thr	Ile	Val	Ala	Leu	Gly	Gln	Gln	Leu	Asp	Arg	Ser	Lys	Pro	Gln	Glu
1				5					10					15	
Ser	Gly	Arg	Pro	Ser	Ala	Thr	Gln	Lys	Lys	Met	Lys	Lys	Arg	Val	
			20					25					30		
Lys	Asp	Glu	Leu	Arg	Lys	Leu	Asn	Thr	Met	Pro	Ala	Ala	Glu	Ala	Asn
		35					40					45			
Glu	Ile	Glu	Asp	Val	Trp	His	Leu	Asp	Leu	Ser	Ser	Arg	Trp	Gln	Leu
		50				55					60				
Tyr	Arg	Leu	Trp	Leu	Gln	Leu	Tyr	Gln	Ala	Asp	Thr	Pro	Pro	Gly	Lys
		65			70				75					80	
Ile	Leu	Ser	Tyr	Glu	Arg	Gln	Tyr	Arg	Thr	Ser	Ala	Glu	Arg	Met	Ala
			85					90						95	
Glu	Leu	Arg	Leu	Gln	Glu	Asp	Leu	His	Ile	Leu	Lys	Asp	Ala	Gln	Val
			100					105					110		
Val	Gly	Met	Thr	Thr	Thr	Gly	Ala	Ala	Lys	Tyr	Arg	Gln	Ile	Leu	Gln



	115		120		125										
Lys	Val	Glu	Pro	Arg	Ile	Val	Ile	Val	Glu	Glu	Ala	Ala	Glu	Val	Leu
	130				135						140				
Glu	Ala	His	Thr	Ile	Ala	Thr	Leu	Ser	Lys	Ala					
145					150					155					

&lt;210&gt; 3737

&lt;211&gt; 1046

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3737

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aatgagccca aggtgacgac aagctgcccc cagcaggggcc tgcaggctgt gcccggtgggc
120
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180
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240
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360
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420
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540
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900
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960
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1020
gcaggcaatg cgctgaaggg acgcgt
1046

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&lt;210&gt; 3738

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3738

Xaa Ala Val Ala Ala Gly Trp Gln Val Ala Ala Pro Cys Pro Gly Ala  
 1 5 10 15  
 Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln  
 20 25 30  
 Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile  
 35 40 45  
 Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg  
 50 55 60  
 Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala  
 65 70 75 80  
 Arg Ile Asp Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu  
 85 90 95  
 Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe  
 100 105 110  
 His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu  
 115 120 125  
 Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr  
 130 135 140  
 Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe  
 145 150 155 160  
 Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile  
 165 170 175  
 Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg  
 180 185 190  
 Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe  
 195 200 205  
 Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu  
 210 215 220  
 Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr  
 225 230 235 240  
 Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro  
 245 250 255  
 Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro  
 260 265 270  
 Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala  
 275 280 285  
 Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro  
 290 295 300  
 Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys  
 305 310 315 320  
 Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly  
 325 330 335  
 Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg  
 340 345

&lt;210&gt; 3739

&lt;211&gt; 1252

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3739

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 120  
 agtgaggagg gcctggagat gctcattcaa tgagcgggag gcacctctcc cttcccgtaa  
 180  
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 240  
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 300  
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 360  
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 420  
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 480  
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 540  
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 660  
 aactttggat tccaaccag taaatcttag caagatctga gtttctccag gtatgatatt  
 720  
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 780  
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 840  
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 900  
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 960  
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<210> 3740

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3740

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Gly	Gln	Trp	Glu	Ser	Ala	Ala	Pro	Pro	Val	Trp	Arg	Pro	Arg	Ala	His
			20					25						30	
Ser	Thr	Glu	Ala	Pro	Gly	His	Pro	Gln	Glu	Asp	Gly	Lys	Gly	Gln	Leu
			35					40						45	
Ala	Gly	Glu	Ser	Pro	Gly	His	Arg	Glu	Pro	Ser	Pro	Gly	Ser	Lys	Gln

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      50              55              60
Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65              70              75              80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85              90              95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
      100              105              110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
      115              120              125
Ile Ser Pro Leu Ser Gln Pro Pro Pro Ser Pro
      130              135

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<210> 3741  
 <211> 562  
 <212> DNA  
 <213> Homo sapiens

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<400> 3741
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120
cggcagatcg gtgcctcctg aatcccaccc aaaattccca ctgggaatgt gttcctgaaa
180
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240
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562

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<210> 3742  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

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<400> 3742
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Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
      20              25              30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
      35              40              45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
      50              55              60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

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65              70              75              80
Tyr Asp Cys Pro Asn Cys Val Gln Phe Phe Leu Ser Phe Glu Tyr Glu
              85              90              95
Val Trp Ser Glu Lys Arg Leu Ser Gln Ala Trp Ala Ala Leu Ser Gly
              100              105              110
Thr His Ser Gln Trp Glu Phe Trp Val Gly Phe Arg Arg His Arg Ser
              115              120              125
Ala Gly Glu Gly Phe Leu Gly Thr Gln Gly
              130              135

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&lt;210&gt; 3743

&lt;211&gt; 468

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3743

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120
atgatcctgc aactcaatcc cagtgagaac tgcacctgga caatagaaag accagaaaac
180
aaaagcatca gaattatctt ttcctatgtc cagcttgatc cagatggaag ctgtgaaagt
240
gaaaacatta aagtctttga cggaacctcc agcaatgggc ctctgctagg gcaagtctgc
300
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360
gttactgact cagcaagaat tcaaagaact gtctttgtgt tctagtagtt cttatttcct
420
aacatcttta ttccaaagtg tggcgggttac ctggatccct ggaaggat
468

```

&lt;210&gt; 3744

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3744

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Xaa His Glu Pro Ser Tyr Lys Leu His Phe Gly Lys Ala Leu Thr Met
1              5              10              15
Ala Glu Ala Glu Gly Asn Ala Ser Cys Thr Val Ser Leu Gly Gly Ala
              20              25              30
Asn Met Ala Glu Thr His Lys Ala Met Ile Leu Gln Leu Asn Pro Ser
              35              40              45
Glu Asn Cys Thr Trp Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg
              50              55              60
Ile Ile Phe Ser Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser
65              70              75              80
Glu Asn Ile Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu
              85              90              95
Gly Gln Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser
              100              105              110
Ser Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln

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115  
Arg Thr Val Phe Val Phe  
130

120

125

<210> 3745  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 3745  
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gacgctgtgg gagaggaaaa cagccacatg tgggctggct gcttggagga gacacatgag  
120  
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180  
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<210> 3746  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 3746  
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35 40 45  
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile  
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Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys  
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Arg His Val Trp Ala Asp  
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<213> Homo sapiens

<400> 3747  
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&lt;210&gt; 3748

&lt;211&gt; 138

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3748

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			20					25					30		
Glu	Glu	Leu	Gly	Glu	Ala	Ala	Ala	Ala	Phe	Arg	Val	Glu	Arg	Thr	Asp
		35					40					45			
Tyr	Arg	Ser	Ser	His	Val	Gly	Val	Arg	Ala	Thr	Arg	Cys	Gly	Pro	Leu
	50					55					60				
Leu	Cys	Gln	Ala	Ser	Asp	Ala	Arg	Gly	Ala	Val	Gly	Cys	Gly	Gly	Arg
65				70					75					80	
Arg	Asn	Thr	Arg	Gln	Gly	Pro	Arg	Ala	Gly	Gly	Gly	Thr	Ser	Leu	Gly
			85					90					95		
Leu	Cys	Pro	Phe	Pro	Asn	Phe	Leu	Phe	Ser	Gln	Ser	Phe	Leu	Ser	Pro
		100					105					110			
Lys	Lys	Ala	Ser	Leu	Glu	Lys	Ser	Leu	Cys	Pro	Ser	Asp	Leu	Ala	Leu
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Ser	Pro	Ala	Phe	Leu	Val	Glu	Leu	Gly	Ser						
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&lt;210&gt; 3749

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 540  
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<210> 3750  
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 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ser Thr Ser Lys Gln Met Pro Pro Ser Asp Ala Glu Gly Asp Pro Leu  
 50 55 60  
 Met Asn Met Leu Met Arg Leu Gln Glu Ala Ala Asn Tyr Ser Ser Pro  
 65 70 75 80  
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 Leu Asp Ser Ser Leu Glu Ser Thr Leu  
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<210> 3751  
 <211> 554  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
 gcagtctctg gtcaccttct tctcccgctt gagaccaaac cgcagcgggc gctacgaggg  
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 360  
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<210> 3752

<211> 66

<212> PRT

<213> Homo sapiens

<400> 3752

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Pro	His	His	Gly	Pro	Gly	Pro	Ala	Ala	Ala	Arg	Gly	Ser	Val	Ala	Pro
			20					25					30		
Ser	Gly	Ala	Lys	Gly	Val	Ser	Tyr	Thr	Gln	Gly	Gln	Ser	Pro	Glu	Pro
			35				40					45			
Arg	Thr	Arg	Glu	Val	Phe	Leu	Leu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Phe
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<210> 3753

<211> 1426

<212> DNA

<213> Homo sapiens

<400> 3753

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&lt;210&gt; 3754

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3754

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 Met Asp Cys Arg Val His Met Arg Pro Ile Gly Leu Thr Trp Val Leu  
 35 40 45  
 Gln Leu Thr Leu Ala Trp Ile Leu Leu Glu Ala Cys Gly Gly Ser Arg  
 50 55 60  
 Pro Leu Gln Ala Arg Ser Gln Gln His His Gly Leu Ala Ala Asp Leu  
 65 70 75 80  
 Gly Lys Gly Lys Leu His Leu Ala Gly Pro Cys Cys Pro Ser Glu Met

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Asp	Thr	Thr	Glu	Thr	Ser	Gly	Pro	Gly	Asn	His	Pro	Glu	Arg	Cys	Gly		
100								105				110					
Val	Pro	Ser	Pro	Glu	Cys	Glu	Ser	Phe	Leu	Glu	His	Leu	Gln	Arg	Ala		
115								120				125					
Leu	Arg	Ser	Arg	Phe	Arg	Leu	Arg	Leu	Leu	Gly	Val	Arg	Gln	Ala	Gln		
130								135				140					
Pro	Leu	Cys	Glu	Glu	Leu	Cys	Gln	Ala	Trp	Phe	Ala	Asn	Cys	Glu	Asp		
145								150				155					
Asp	Ile	Thr	Cys	Gly	Pro	Thr	Trp	Leu	Pro	Leu	Ser	Glu	Lys	Arg	Gly		
165								170				175					
Cys	Glu	Pro	Ser	Cys	Leu	Thr	Tyr	Gly	Gln	Thr	Phe	Ala	Asp	Gly	Thr		
180								185				190					
Asp	Leu	Cys	Arg	Ser	Ala	Leu	Gly	His	Ala	Leu	Pro	Val	Ala	Ala	Pro		
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Gly	Ala	Arg	His	Cys	Phe	Asn	Ile	Ser	Ile	Ser	Ala	Val	Pro	Arg	Pro		
210								215				220					
Arg	Pro	Gly	Arg	Arg	Gly	Arg	Glu	Ala	Pro	Ser	Arg	Arg	Ser	Arg	Ser		
225								230				235					
Pro	Arg	Thr	Ser	Ile	Leu	Asp	Ala	Ala	Gly	Ser	Gly	Ser	Gly	Ser	Gly		
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<210> 3755

<211> 3149

<212> DNA

<213> Homo sapiens

<400> 3755

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&lt;210&gt; 3756

&lt;211&gt; 199

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3756

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			20					25					30		
Ser	Glu	Glu	Thr	Thr	Ser	Asp	Asn	Asn	Asn	Thr	Ser	Ile	Thr	Thr	Pro
			35				40					45			
Thr	Leu	Ser	Pro	Ser	Gln	Gln	Pro	Leu	Pro	Thr	Glu	Leu	Asn	Val	Thr
	50					55					60				
Ser	Pro	Ser	Lys	Glu	Glu	Cys	Gly	Pro	Cys	Thr	Asp	Thr	Ala	His	Val
65				70						75				80	
Ser	Leu	Ile	Thr	Pro	Thr	Lys	Arg	Ser	Cys	Gly	Thr	Asp	Ser	Gln	Ser
			85					90						95	
Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu	Asn	Thr
			100					105					110		
Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg	Arg	Arg
			115				120					125			
Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu	Leu	Gly
	130					135					140				
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 <211> 1046  
 <212> DNA  
 <213> Homo sapiens

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<210> 3758  
 <211> 199  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3758

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Ala Val Asp Leu Cys Gly Arg Leu Leu Thr Ala His Gly Gln Gly Tyr
      20           25           30
Gly Lys Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
      35           40           45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
      50           55           60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
65           70           75           80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
      85           90           95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
      100          105          110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
      115          120          125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
      130          135          140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
145          150          155          160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
      165          170          175
Asp Pro Gly Leu Cys Gly Leu Val Val Val Ala Leu Ala Glu Ile Phe
      180          185          190
Phe Arg Asp Gly Lys Ser Phe
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&lt;210&gt; 3759

&lt;211&gt; 830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3759

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 <212> PRT  
 <213> Homo sapiens

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 Cys Asp Arg Glu Leu Tyr Pro Gly Glu Pro Arg Leu His Leu Ser Ala  
 35 40 45  
 Pro Gly Pro Ala Ser His Gln Asp Gln Pro Glu Trp Gln Glu Asp Met  
 50 55 60  
 Gly Arg Thr Gly Gly Gly Gly Cys Gly His Pro Ser Phe Asn Gln Met  
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 Phe Val Leu Leu  
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<210> 3761  
 <211> 458  
 <212> DNA  
 <213> Homo sapiens

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 360  
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<210> 3762  
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 <212> PRT  
 <213> Homo sapiens

<400> 3762  
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 20 25 30  
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 35 40 45  
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<210> 3763  
 <211> 1340  
 <212> DNA  
 <213> Homo sapiens

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 1340

<210> 3764  
 <211> 288  
 <212> PRT  
 <213> Homo sapiens

<400> 3764  
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 35 40 45  
 Asn Gly Gly Ala Ser Glu Ala Gly Glu Asp Arg Glu Ala Pro Gly Lys  
 50 55 60  
 Arg Arg Arg Leu Gly Phe Leu Ala Thr Ala Trp Leu Thr Phe Tyr Asp  
 65 70 75 80  
 Ile Ala Met Thr Ala Gly Trp Leu Val Leu Ala Ile Ala Met Val Arg  
 85 90 95  
 Phe Tyr Met Glu Lys Gly Thr His Arg Gly Leu Tyr Lys Ser Ile Gln  
 100 105 110  
 Lys Thr Leu Lys Phe Phe Gln Thr Phe Ala Leu Leu Glu Ile Val His  
 115 120 125  
 Cys Leu Ile Gly Ile Val Pro Thr Ser Val Ile Val Thr Gly Val Gln  
 130 135 140  
 Val Ser Ser Arg Ile Phe Met Val Trp Leu Ile Thr His Ser Ile Lys  
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 Pro Ile Gln Asn Glu Glu Ser Val Val Leu Phe Leu Val Ala Trp Thr  
 165 170 175  
 Val Thr Glu Ile Thr Arg Tyr Ser Phe Tyr Thr Phe Ser Leu Leu Asp  
 180 185 190  
 His Leu Pro Tyr Phe Ile Lys Trp Ala Arg Tyr Asn Phe Phe Ile Ile  
 195 200 205  
 Leu Tyr Pro Val Gly Val Ala Gly Glu Leu Leu Thr Ile Tyr Ala Ala  
 210 215 220  
 Leu Pro Tyr Val Lys Lys Thr Gly Met Phe Ser Ile Arg Leu Pro Asn  
 225 230 235 240  
 Lys Tyr Asn Val Ser Phe Asp Tyr Tyr Tyr Phe Leu Leu Ile Thr Met



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2764

&lt;210&gt; 3766

&lt;211&gt; 464

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3766

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          20          25          30
Arg Arg Arg Arg Gly Pro Ile Gly Arg Val Asn Met Asp Leu Glu Asn
          35          40          45
Lys Val Lys Lys Met Gly Leu Gly His Glu Gln Gly Phe Gly Ala Pro
          50          55          60
Cys Leu Lys Cys Lys Glu Lys Cys Glu Gly Phe Glu Leu His Phe Trp
65          70          75          80
Arg Lys Ile Cys Arg Asn Cys Lys Cys Gly Gln Glu Glu His Asp Val
          85          90          95
Leu Leu Ser Asn Glu Glu Asp Arg Lys Val Gly Lys Leu Phe Glu Asp
          100         105         110
Thr Lys Tyr Thr Thr Leu Ile Ala Lys Leu Lys Ser Asp Gly Ile Pro
          115         120         125
Met Tyr Lys Arg Asn Val Met Ile Leu Thr Asn Pro Val Ala Ala Lys
          130         135         140
Lys Asn Val Ser Ile Asn Thr Val Thr Tyr Glu Trp Ala Pro Pro Val
145         150         155         160
Gln Asn Gln Ala Leu Ala Arg Gln Tyr Met Gln Met Leu Pro Lys Glu
          165         170         175
Lys Gln Pro Val Ala Gly Ser Glu Gly Ala Gln Tyr Arg Lys Lys Gln
          180         185         190
Leu Ala Lys Gln Leu Pro Ala His Asp Gln Asp Pro Ser Lys Cys His
          195         200         205
Glu Leu Ser Pro Arg Glu Val Lys Glu Met Glu Gln Phe Val Lys Lys
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Tyr Lys Ser Glu Ala Leu Gly Val Gly Asp Val Lys Leu Pro Cys Glu
225         230         235         240
Met Asp Ala Gln Gly Pro Lys Gln Met Asn Ile Pro Gly Gly Asp Arg
          245         250         255
Ser Thr Pro Ala Ala Val Gly Ala Met Glu Asp Lys Ser Ala Glu His
          260         265         270
Lys Arg Thr Gln Tyr Ser Cys Tyr Cys Cys Lys Leu Ser Met Lys Glu
          275         280         285
Gly Asp Pro Ala Ile Tyr Ala Glu Arg Ala Gly Tyr Asp Lys Leu Trp
          290         295         300
His Pro Ala Cys Phe Val Cys Ser Thr Cys His Glu Leu Leu Val Asp
305         310         315         320
Met Ile Tyr Phe Trp Lys Asn Glu Lys Leu Tyr Cys Gly Arg His Tyr
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Cys Asp Ser Glu Lys Pro Arg Cys Ala Gly Cys Asp Glu Leu Ile Phe
          340         345         350
Ser Asn Glu Tyr Thr Gln Ala Glu Asn Gln Asn Trp His Leu Lys His
          355         360         365
Phe Cys Cys Phe Asp Cys Asp Ser Ile Leu Ala Gly Glu Ile Tyr Val
          370         375         380
Met Val Asn Asp Lys Pro Val Cys Lys Pro Cys Tyr Val Lys Asn His

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Ala Val Val Cys Gln Gly Cys His Asn Ala Ile Asp Pro Glu Val Gln
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Arg Val Thr Tyr Asn Asn Phe Ser Trp His Ala Ser Thr Glu Cys Phe
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Leu Cys Ser Cys Cys Ser Lys Cys Leu Ile Gly Gln Lys Phe Met Pro
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Val Glu Gly Met Val Phe Cys Ser Val Glu Cys Lys Lys Arg Met Ser
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&lt;210&gt; 3767

&lt;211&gt; 2439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3767

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&lt;210&gt; 3768

&lt;211&gt; 379

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3768

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 Asn Ala Asp Ser Val Glu Gln Ser Phe Val Gly Leu Lys Gln Leu Ile

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 Ser Cys Arg Asn Trp Arg Ala Ala Val Asp Leu Cys Gly Arg Leu Leu  
 35 40 45  
 Thr Ala His Gly Gln Gly Tyr Gly Lys Ser Gly Leu Leu Thr Ser His  
 50 55 60  
 Thr Thr Asp Ser Leu Gln Leu Trp Phe Val Arg Leu Ala Leu Leu Val  
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 Lys Leu Gly Leu Phe Gln Asn Ala Glu Met Glu Phe Glu Pro Phe Gly  
 85 90 95  
 Asn Leu Asp Gln Pro Asp Leu Tyr Tyr Glu Tyr Tyr Pro His Val Tyr  
 100 105 110  
 Pro Gly Arg Arg Gly Ser Met Val Pro Phe Ser Met Arg Ile Leu His  
 115 120 125  
 Ala Glu Leu Gln Gln Tyr Leu Gly Asn Pro Gln Glu Ser Leu Asp Arg  
 130 135 140  
 Leu His Lys Val Lys Thr Val Cys Ser Lys Ile Leu Ala Asn Leu Glu  
 145 150 155 160  
 Gln Gly Leu Ala Glu Asp Gly Gly Met Ser Ser Val Thr Gln Glu Gly  
 165 170 175  
 Arg Gln Ala Ser Ile Arg Leu Trp Arg Ser Arg Leu Gly Arg Val Met  
 180 185 190  
 Tyr Ser Met Ala Asn Cys Leu Leu Leu Met Lys Asp Tyr Val Leu Ala  
 195 200 205  
 Val Glu Ala Tyr His Ser Val Ile Lys Tyr Tyr Pro Glu Gln Glu Pro  
 210 215 220  
 Gln Leu Leu Ser Gly Ile Gly Arg Ile Ser Leu Gln Ile Gly Asp Ile  
 225 230 235 240  
 Lys Thr Ala Glu Lys Tyr Phe Gln Asp Val Glu Lys Val Thr Gln Lys  
 245 250 255  
 Leu Asp Gly Leu Gln Gly Lys Ile Met Val Leu Met Asn Ser Ala Phe  
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 Glu Ile Leu Arg Met Asp Pro Arg Asn Ala Val Ala Asn Asn Asn Ala  
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 Ala Val Cys Leu Leu Tyr Leu Gly Lys Leu Lys Asp Ser Leu Arg Gln  
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 Leu Glu Ala Met Val Gln Gln Asp Pro Arg His Tyr Leu His Glu Ser  
 325 330 335  
 Val Leu Phe Asn Leu Thr Thr Met Tyr Glu Leu Glu Ser Ser Arg Ser  
 340 345 350  
 Met Gln Lys Lys Gln Ala Leu Leu Glu Ala Val Ala Gly Lys Glu Gly  
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 Asp Ser Phe Asn Thr Gln Cys Leu Lys Leu Ala  
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&lt;210&gt; 3769

&lt;211&gt; 1931

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3769

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<213> Homo sapiens

<400> 3770

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&lt;211&gt; 1514

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3771

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3772

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<212> PRT

<213> Homo sapiens

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&lt;211&gt; 549

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3775

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&lt;211&gt; 1049

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3778

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Ile Asp Leu Ser Ser Asp Ser Glu Asp Val Val Ser Pro Asn Cys Ser
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<213> Homo sapiens

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<212> DNA
<213> Homo sapiens
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<211> 4137

<212> DNA

<213> Homo sapiens

<400> 3783

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 Val Gln Glu Glu Ser Pro Glu Gly Gly Arg Phe Lys Lys Glu Ile Val  
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 Gly Thr Gln Asp Ala Ile Ser Ser Ala Asn Pro Arg Val Ile Asp Asp  
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 Ala Arg Ala Arg Lys Leu Ser Asn Asp Leu Lys Arg Cys Thr Tyr Tyr  
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<212> DNA
<213> Homo sapiens
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Ala	Pro	Gln	Ser	Ile	Pro	Arg	Ser	Ala	Ser	Tyr	Pro	Cys	Ala	Ala	Pro
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Leu Gly Gln Thr Pro Gly Phe Ser Ser Arg Leu Pro His Leu Pro Ala

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Ala	Ala	Val	Ile	Thr	His	Glu	Gln	Cys	Leu	Ala	Gln	Ser	Gly	Arg	Ser				
				85					90					95					
Ala	Val	Leu	Val	His	Met	Glu	Glu	Pro	Lys	Gln	Ala	Pro	Cys	Thr	Val				
			100					105					110						
Leu																			

&lt;210&gt; 3789

&lt;211&gt; 4341

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3789

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 <211> 1092  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Asp Leu His Asn Glu Lys Glu Leu Ile Lys Glu Leu Glu Gln Ser  
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 Leu Ala Ser Trp Thr Gln Asn Leu Lys Glu Leu Gln Thr Met Lys Ala  
 65 70 75 80  
 Asp Leu Thr Arg His Val Leu Val Glu Asp Val Met Val Leu Lys Glu  
 85 90 95  
 Gln Ile Glu His Leu His Arg Gln Trp Glu Asp Leu Cys Leu Arg Val  
 100 105 110  
 Ala Ile Arg Lys Gln Glu Ile Glu Asp Arg Leu Asn Thr Trp Val Val  
 115 120 125  
 Phe Asn Glu Lys Asn Lys Glu Leu Cys Ala Trp Leu Val Gln Met Glu  
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 Lys Leu Gln Leu Lys Gln Met Gly Asp Gln Leu Ile Lys Ala Ser Asn  
 180 185 190  
 Lys Ser Arg Ala Ala Glu Ile Asp Asp Lys Leu Asn Lys Ile Asn Asp  
 195 200 205  
 Arg Trp Gln His Leu Phe Asp Val Ile Gly Ser Arg Val Lys Lys Leu  
 210 215 220  
 Lys Glu Thr Phe Ala Phe Ile Gln Gln Leu Asp Lys Asn Met Ser Asn  
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 245 250 255  
 Val Tyr Asp Val Cys Asp Asp Gln Glu Ile Gln Lys Arg Leu Ala Glu  
 260 265 270  
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 275 280 285  
 Ser Val Phe Asn Ile Cys Asp Val Leu Leu His Asp Ser Asp Ala Cys  
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 Ala Asn Glu Thr Glu Cys Asp Ser Ile Gln Gln Thr Thr Arg Ser Leu  
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 Asp Arg Arg Trp Arg Asn Ile Cys Ala Met Ser Met Glu Arg Arg Met  
 325 330 335  
 Lys Ile Glu Glu Thr Trp Arg Leu Trp Gln Lys Phe Leu Asp Asp Tyr  
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Arg Phe Glu Ala Phe Gln Arg Gln Ile His Glu Arg Leu Thr Gln Leu
385              390              395              400
Glu Leu Ile Asn Lys Gln Tyr Arg Arg Leu Ala Arg Glu Asn Arg Thr
      405              410              415
Asp Thr Ala Ser Arg Leu Lys Gln Met Val His Glu Gly Asn Gln Arg
      420              425              430
Trp Asp Asn Leu Gln Arg Arg Val Thr Ala Val Leu Arg Arg Leu Arg
      435              440              445
His Phe Thr Asn Gln Arg Glu Glu Phe Glu Gly Thr Arg Glu Ser Ile
      450              455              460
Leu Val Trp Leu Thr Glu Met Asp Leu Gln Leu Thr Asn Val Glu His
465              470              475              480
Phe Ser Glu Ser Asp Ala Asp Asp Lys Met Arg Gln Leu Asn Gly Phe
      485              490              495
Gln Gln Glu Ile Thr Leu Asn Thr Asn Lys Ile Asp Gln Leu Ile Val
      500              505              510
Phe Gly Glu Gln Leu Ile Gln Lys Ser Glu Pro Leu Asp Ala Val Leu
      515              520              525
Ile Glu Asp Glu Leu Glu Glu Leu His Arg Tyr Cys Gln Glu Val Phe
      530              535              540
Gly Arg Val Ser Arg Phe His Arg Arg Leu Thr Ser Cys Thr Pro Gly
545              550              555              560
Leu Glu Asp Glu Lys Glu Ala Ser Glu Asn Glu Thr Asp Met Glu Asp
      565              570              575
Pro Arg Glu Ile Gln Thr Asp Ser Trp Arg Lys Arg Gly Glu Ser Glu
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Glu Pro Ser Ser Pro Gln Ser Leu Cys His Leu Val Ala Pro Gly His
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Glu Arg Ser Gly Cys Glu Thr Pro Val Ser Val Asp Ser Ile Pro Leu
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Glu Trp Asp His Thr Gly Asp Val Gly Gly Ser Ser Ser His Glu Glu
625              630              635              640
Asp Glu Glu Gly Pro Tyr Tyr Ser Ala Leu Ser Gly Lys Ser Ile Ser
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Asp Gly His Ser Trp His Val Pro Asp Ser Pro Ser Cys Pro Glu His
      660              665              670
His Tyr Lys Gln Met Glu Gly Asp Arg Asn Val Pro Pro Val Pro Pro
      675              680              685
Ala Ser Ser Thr Pro Tyr Lys Pro Pro Tyr Gly Lys Leu Leu Leu Pro
      690              695              700
Pro Gly Thr Asp Gly Gly Lys Glu Gly Pro Arg Val Leu Asn Gly Asn
705              710              715              720
Pro Gln Gln Glu Asp Gly Gly Leu Ala Gly Ile Thr Glu Gln Gln Ser
      725              730              735
Gly Ala Phe Asp Arg Trp Glu Met Ile Gln Ala Gln Glu Leu His Asn
      740              745              750
Lys Leu Lys Ile Lys Gln Asn Leu Gln Gln Leu Asn Ser Asp Ile Ser
      755              760              765
Ala Ile Thr Thr Trp Leu Lys Lys Thr Glu Ala Glu Leu Glu Met Leu
      770              775              780
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Lys Arg Leu Gln Glu Ile Leu Lys Ala Phe Asp Thr Tyr Lys Ala Leu

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 Trp Glu Ala Ala Gln Gly Ala Val Asp Ser Trp Arg Gly Gly Leu Arg  
 850 855 860  
 Gln Ser Leu Met Gln Cys Gln Asp Phe His Gln Leu Ser Gln Asn Leu  
 865 870 875 880  
 Leu Leu Trp Leu Ala Ser Ala Lys Asn Arg Arg Gln Lys Ala His Val  
 885 890 895  
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 900 905 910  
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&lt;210&gt; 3791

&lt;211&gt; 1011

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3791

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 240  
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 300



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 420  
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&lt;210&gt; 3792

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3792

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Ala	Leu	Ser	Met	Gly	Gly	Lys	Val	Pro	Val	Ser	Glu	Gly	Leu	Glu	His
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Ser	Asp	Leu	Pro	Asp	Gly	Thr	Gly	Glu	Phe	Leu	Asp	Ala	Trp	Leu	Met
		50				55					60				
Leu	Val	Glu	Lys	Met	Val	Asn	Pro	Thr	Thr	Val	Leu	Glu	Ser	Pro	His
		65			70					75				80	
Ser	Leu	Pro	Ala	Lys	Leu	Pro	Gly	Gly	Val	Gln	Asn	Phe	Pro	Gln	Phe
			85						90					95	
Ser	Ala	Leu	Arg	Phe	Leu	Val	Val	Thr	Gln	Lys	Ala	Ala	Phe	Thr	Cys
		100						105					110		
Ile	Lys	Asn	Leu	Trp	Asn	Arg	Lys	Pro	Leu	Lys	Val	Tyr	Gly	Gly	Arg
		115				120						125			
Met	Ala	Glu	Ser	Met	Leu	Ala	Ile	Leu	Cys	His	Ile	Leu	Arg	Gly	Glu
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Pro	Val	Ile	Arg	Glu	Arg	Leu	Ser	Lys	Glu	Lys	Glu	Gly	Ser	Arg	Gly
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Glu	Glu	Asp	Thr	Gly	Gln	Glu	Glu	Gly	Gly	Ser	Arg	Arg	Glu	Pro	Gln
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 Thr Glu Tyr Leu Leu Thr His Pro Pro Ile Met Gly Gly Val Val  
 210 215 220  
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 225 230 235 240  
 Met Ser Leu Gly Gln Asp Ile Pro Met Asp Gln Arg Ala Glu Ser Pro  
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 <212> DNA  
 <213> Homo sapiens

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 <212> PRT  
 <213> Homo sapiens

<400> 3794  
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 Phe Val Pro Gly Arg Asn Asn Ser Phe Phe Phe Ser Trp Arg Gln Cys  
 35 40 45  
 Phe Thr Leu Val Ala Gln Ala Gly Gly Gln Trp Arg Asp Leu Ser Ser  
 50 55 60  
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<210> 3795  
 <211> 1341

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3795

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1341

&lt;210&gt; 3796

&lt;211&gt; 294

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3796

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 Pro Asn Gln Leu Tyr Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val  
 35 40 45  
 Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly  
 50 55 60  
 Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly  
 65 70 75 80  
 Asn Ser Pro Ser Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser  
 85 90 95  
 Tyr Leu Lys Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg  
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 115 120 125  
 Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly  
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 Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln  
 145 150 155 160  
 Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln  
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 Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn  
 180 185 190  
 Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile  
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 245 250 255  
 Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu  
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&lt;210&gt; 3797

&lt;211&gt; 1970

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3797

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<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

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 245 250 255  
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Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
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Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
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Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
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Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
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&lt;210&gt; 3799

&lt;211&gt; 210

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3799

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&lt;210&gt; 3800

&lt;211&gt; 70

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3800

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          20          25          30
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&lt;210&gt; 3801

&lt;211&gt; 4070

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 3802

&lt;211&gt; 476

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3802

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			20					25					30		
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		35				40						45			
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Met	Arg	Val	Ile	Leu	Ala	Ser	Asn	Arg	Gly	Thr	Leu	Met	Glu	Leu	Gly
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Ile	Ser	Pro	Ile	Val	Thr	Ser	Gly	Leu	Ile	Met	Gln	Leu	Leu	Ala	Gly
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Ala	Lys	Ile	Ile	Glu	Val	Gly	Asp	Thr	Pro	Lys	Asp	Arg	Ala	Leu	Phe
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Asn	Gly	Ala	Gln	Lys	Leu	Phe	Gly	Met	Ile	Ile	Thr	Ile	Gly	Gln	Ser

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Ile	Val	Leu	Leu	Leu	Asp	Glu	Leu	Leu	Gln	Lys	Gly	Tyr	Gly	Leu	Gly
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Trp	Lys	Ala	Phe	Ser	Pro	Thr	Thr	Ile	Asn	Thr	Gly	Arg	Gly	Thr	Glu
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Ser	Gln	Met	Leu	Ser	Ala	Arg	Phe	Ser	Gly	Asn	Phe	Leu	Val	Asn	Leu
305	310					315					320				
Leu	Gly	Gln	Trp	Ser	Asp	Thr	Ser	Ser	Gly	Gly	Pro	Ala	Arg	Ala	Tyr
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Pro	Val	Gly	Gly	Leu	Cys	Tyr	Tyr	Leu	Ser	Pro	Pro	Glu	Ser	Phe	Gly
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Ser	Val	Leu	Glu	Asp	Pro	Val	His	Ala	Val	Val	Tyr	Ile	Val	Phe	Met
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Ser	Ser	Ala	Lys	Asp	Val	Ala	Lys	Gln	Leu	Lys	Glu	Gln	Gln	Met	Val
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Met	Arg	Gly	His	Arg	Glu	Thr	Ser	Met	Val	His	Glu	Leu	Asn	Arg	Tyr
405					410					415					
Ile	Pro	Thr	Ala	Ala	Ala	Phe	Gly	Gly	Leu	Cys	Ile	Gly	Ala	Leu	Ser
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Val	Leu	Ala	Asp	Phe	Leu	Gly	Ala	Ile	Gly	Ser	Gly	Thr	Gly	Ile	Leu
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Leu	Ala	Val	Thr	Ile	Ile	Tyr	Gln	Tyr	Phe	Glu	Ile	Phe	Val	Lys	Glu
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<210> 3803

<211> 345

<212> DNA

<213> Homo sapiens

<400> 3803

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<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

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			20				25					30			
Glu	Leu	Arg	Lys	Ser	Gly	Glu	Ala	Lys	Tyr	Ala	His	Leu	Ser	Asp	Glu
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Leu	His	Val	Leu	Ile	Glu	Val	Phe	Ala	Pro	Pro	Gly	Glu	Ala	Tyr	Ser
	50				55						60				
Arg	Met	Ser	His	Ala	Leu	Glu	Glu	Ile	Lys	Lys	Phe	Leu	Val	Pro	Asp
65					70				75					80	
Tyr	Asn	Asp	Glu	Ile	Arg	Gln	Glu	Gln	Leu	Arg	Glu	Leu	Ser	Tyr	Leu
			85				90						95		
Asn	Gly	Ser	Glu	Asp	Ser	Gly	Arg	Gly	Arg	Gly	Ile	Arg	Gly	Arg	Gly
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<211> 1923

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 3806

<211> 280  
 <212> PRT  
 <213> Homo sapiens

<400> 3806  
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 Ala Arg Gln Glu Pro Arg Leu Val Leu Ile Ser Leu Thr Cys Asp Gly  
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 Asp Thr Leu Thr Leu Ser Ala Ala Tyr Thr Lys Asp Leu Leu Leu Pro  
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 Ile Lys Thr Pro Thr Thr Asn Ala Val His Lys Cys Arg Val His Gly  
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 Thr Ser Phe Leu Lys Ser Gln Pro Tyr Arg Leu Val His Phe Glu Pro  
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 His Met Arg Pro Arg Arg Pro His Gln Ile Ala Asp Leu Phe Arg Pro  
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 Lys Asp Gln Ile Ala Tyr Ser Asp Thr Ser Pro Phe Leu Ile Leu Ser  
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 Glu Ala Ser Leu Ala Asp Leu Asn Ser Arg Leu Glu Lys Lys Val Lys  
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 Ala Thr Asn Phe Arg Pro Asn Ile Val Ile Ser Gly Cys Asp Val Tyr  
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 Ala Glu Asp Ser Trp Asp Glu Leu Ile Gly Asp Val Glu Leu Lys  
 195 200 205  
 Arg Val Met Ala Cys Ser Arg Cys Ile Leu Thr Thr Val Asp Pro Asp  
 210 215 220  
 Thr Gly Val Met Ser Arg Lys Glu Pro Leu Glu Thr Leu Lys Ser Tyr  
 225 230 235 240  
 Arg Gln Cys Asp Pro Ser Glu Arg Lys Leu Tyr Gly Lys Ser Pro Leu  
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<210> 3807  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

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<210> 3808

<211> 85

<212> PRT

<213> Homo sapiens

<400> 3808

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			20					25				30			
Leu	Ala	Arg	Ser	Ala	Arg	Phe	Arg	Gln	Gly	Gly	Arg	Phe	Pro	Val	Leu
		35				40					45				
Ser	Tyr	His	Pro	Ala	Pro	Ser	Gly	Arg	Gly	Ser	Ala	Pro	Ser	Pro	Arg
	50					55				60					
Ser	Ala	Pro	Gly	Trp	Leu	Arg	Pro	Phe	Trp	Ala	Phe	Ser	Phe	Trp	Pro
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				85											

<210> 3809

<211> 1221

<212> DNA

<213> Homo sapiens

<400> 3809

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&lt;210&gt; 3810

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3810

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Ser	Trp	Arg	Ala	Ser	Ser	Asn	Cys	Ser	Arg	Ala	Glu	Pro	Ile	Lys	Glu
			20					25					30		
Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr
			35				40					45			
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Ser	Pro	Trp	Ser	Leu	Ala
			50			55					60				
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Ser	Asp	Ala
					70					75				80	
Trp	His	Arg	Ser	Ala	Thr	Thr	Arg	Gly	Pro	Asp	Pro	Thr	Trp	Glu	Leu
				85					90					95	

Arg

&lt;210&gt; 3811

&lt;211&gt; 296

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3811

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 120



acaccacgcc agatatctgg gcagcagggg catctgacct ggggtgcttg ctggcagcac  
 180  
 tgcctggaca gcagggcctc cttagggcca cctcccaacc cagctagggg gcgtcttaag  
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<210> 3812

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3812

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Pro	Val	Leu	Lys	Ala	Gln	Asn	Cys	Arg	Pro	Ser	Gly	Arg	Pro	Val	Leu
			20					25					30		
Pro	Tyr	Gln	Arg	Thr	Pro	Arg	Gln	Ile	Ser	Gly	Gln	Gln	Gly	His	Leu
		35					40					45			
Thr	Trp	Gly	Ala	Cys	Trp	Gln	His	Cys	Leu	Asp	Ser	Arg	Ala	Ser	Leu
	50					55					60				
Gly	Pro	Pro	Pro	Asn	Pro	Ala	Arg	Glu	Arg	Leu	Lys	Ala	Cys	Pro	Pro
65					70					75				80	
Cys	Trp	Ala	Trp	Val	Gly	Arg	Ser	Gly	Thr	Gly	Pro	Ser	Arg		
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<210> 3813

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 3813

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&lt;210&gt; 3814

&lt;211&gt; 294

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3814

Arg	Ser	Lys	Trp	Trp	Ala	Pro	Ser	Glu	Met	Val	Thr	Val	Ser	Pro	Glu
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Gln	Asn	Asp	Arg	Thr	Pro	Leu	Val	Met	Val	His	Gly	Phe	Gly	Gly	Gly
		20						25					30		
Val	Gly	Leu	Trp	Ile	Leu	Asn	Met	Asp	Ser	Leu	Ser	Ala	Arg	Arg	Thr
	35					40					45				
Leu	His	Thr	Phe	Asp	Leu	Leu	Gly	Phe	Gly	Arg	Ser	Ser	Arg	Pro	Ala
	50				55					60					
Phe	Pro	Arg	Asp	Pro	Glu	Gly	Ala	Glu	Asp	Glu	Phe	Val	Thr	Ser	Ile
65				70				75						80	
Glu	Thr	Trp	Arg	Glu	Thr	Met	Gly	Ile	Pro	Ser	Met	Ile	Leu	Leu	Gly
		85						90					95		
His	Ser	Leu	Gly	Gly	Phe	Leu	Ala	Thr	Ser	Tyr	Ser	Ile	Lys	Tyr	Pro
	100						105					110			
Asp	Arg	Val	Lys	His	Leu	Ile	Leu	Val	Asp	Pro	Trp	Gly	Phe	Pro	Leu
	115					120						125			
Arg	Pro	Thr	Asn	Pro	Ser	Glu	Ile	Arg	Ala	Pro	Pro	Ala	Trp	Val	Lys
	130					135				140					
Ala	Val	Ala	Ser	Val	Leu	Gly	Arg	Ser	Asn	Pro	Leu	Ala	Val	Leu	Arg
145				150				155						160	
Val	Ala	Gly	Pro	Trp	Gly	Pro	Gly	Leu	Val	Gln	Arg	Phe	Arg	Pro	Asp

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                165                170                175
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                180                185                190
Tyr Ile Tyr His Cys Asn Ala Gln Asn Pro Ser Gly Glu Thr Ala Phe
                195                200                205
Lys Ala Met Met Glu Ser Phe Gly Trp Ala Arg Arg Pro Met Leu Glu
                210                215                220
Arg Ile His Leu Ile Arg Lys Asp Val Pro Ile Thr Met Ile Tyr Gly
225                230                235                240
Ser Asp Thr Trp Ile Asp Thr Ser Thr Gly Lys Lys Val Lys Met Gln
                245                250                255
Arg Pro Asp Ser Tyr Val Arg Asp Met Glu Ile Lys Gly Ala Ser His
                260                265                270
His Val Tyr Ala Asp Gln Pro His Ile Phe Asn Ala Val Val Glu Glu
                275                280                285
Ile Cys Asp Ser Val Asp
                290

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&lt;210&gt; 3815

&lt;211&gt; 3669

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3815

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900

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&lt;210&gt; 3816

&lt;211&gt; 707

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3816

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Lys	Tyr	Asp	Pro	Thr	Phe	Lys	Gly	Pro	Ile	Tyr	Asn	Arg	Gly	Cys	Thr
			20					25					30		
Asp	Ile	Ile	Cys	Cys	Val	Phe	Leu	Leu	Leu	Ala	Ile	Val	Gly	Tyr	Val
		35					40					45			
Ala	Val	Gly	Ile	Ile	Ala	Trp	Thr	His	Gly	Asp	Pro	Arg	Lys	Val	Ile

2962

			485					490				495			
Arg	Ala	Leu	Arg	Tyr	His	Thr	Gly	Ser	Leu	Ala	Phe	Gly	Ala	Leu	Ile
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Ser	Ala	Arg	Asn	Ala	Phe	Phe	Leu	Leu	Met	Arg	Asn	Ile	Ile	Arg	Val
			580					585						590	
Ala	Val	Leu	Asp	Lys	Val	Thr	Asp	Phe	Leu	Phe	Leu	Leu	Gly	Lys	Leu
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	610					615						620			
Arg	Ile	Arg	Ile	Val	Gln	Asp	Thr	Ala	Pro	Pro	Leu	Asn	Tyr	Tyr	Trp
625				630					635					640	
Val	Pro	Ile	Leu	Thr	Val	Ile	Val	Gly	Ser	Tyr	Leu	Ile	Ala	His	Gly
			645					650						655	
Phe	Phe	Ser	Val	Tyr	Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe
		660					665						670		
Leu	Glu	Asp	Leu	Glu	Arg	Asn	Asp	Gly	Ser	Ala	Glu	Arg	Pro	Tyr	Phe
	675					680					685				
Met	Ser	Ser	Thr	Leu	Lys	Lys	Leu	Leu	Asn	Lys	Thr	Asn	Lys	Lys	Ala
	690					695					700				
Ala	Glu	Ser													
705															

&lt;210&gt; 3817

&lt;211&gt; 419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3817

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 419

&lt;210&gt; 3818

&lt;211&gt; 139

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3818

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Arg Val Val His Asn Trp Asp Phe Glu Pro Arg Lys Val Ser Arg Cys
 1             5             10             15
Ser Met Arg Tyr Leu Ala Leu Met Val Ser Arg Pro Val Leu Arg Leu
      20             25             30
Arg Glu Ile Asn Pro Leu Leu Phe Ser Tyr Val Glu Glu Leu Val Glu
      35             40             45
Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
      50             55             60
Thr Cys Arg Glu Ala Met Glu Ala Arg Leu Leu Gln Asp Leu Leu
65             70             75             80
Asp Val His Ala Gly Arg Leu Gly Cys Ser Leu Thr Glu Ile His Thr
      85             90             95
Leu Phe Ala Lys His Ile Lys Leu Asp Cys Glu Arg Cys Gln Ala Lys
      100            105            110
Gly Phe Val Cys Glu Leu Cys Arg Glu Gly Asp Val Leu Phe Pro Phe
      115            120            125
Asp Ser His Thr Ser Val Cys Ala Asp Cys Phe
      130            135

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&lt;210&gt; 3819

&lt;211&gt; 1731

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3819

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780

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&lt;210&gt; 3820

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3820

Thr Pro Pro Pro Pro Gly Met Phe Ile Cys Leu Glu Pro Trp Ala Ser  
 1 5 10 15  
 Ile Ser Gln Gly Ser Leu Thr Ser Pro Thr Pro Arg Ala Ser Leu Leu  
 20 25 30  
 Tyr Phe Phe Thr Asn Cys Ser Ile Ser Phe Thr Ser Leu Gly Asp Asn  
 35 40 45  
 Ser Trp His Phe Glu Gly Ser Trp Ser Cys Ala Gly Ser Cys Phe Ala  
 50 55 60  
 Ser Cys Phe Phe Arg Tyr Cys Ala Pro Ser Glu Pro Ala Thr Gly Arg  
 65 70 75 80  
 Arg Lys Phe Asp Gly Ala Gly Arg Val Ala Val Glu Arg Arg Arg Gly  
 85 90 95  
 Ser Ser Ala Gly Phe Pro Cys Ser Gln Arg Ser Arg Arg Pro Ala Glu  
 100 105 110  
 Pro Gly Arg Gly Ile Thr Asp Arg Arg Arg Gly Pro Ile Gly Arg

```

      115      120      125
Val Asn Met Asp Leu Glu Asn Lys Val Lys Lys Met Gly Leu Gly His
      130      135      140
Glu Gln Gly Phe Gly Ala Pro Cys Leu Lys Cys Lys Glu Lys Cys Glu
145      150      155      160
Gly Phe Glu Leu His Phe Trp Arg Lys Ile Cys Arg Asn Cys Lys Cys
      165      170      175
Gly Gln Glu Glu His Asp Val Leu Leu Ser Asn Glu Glu Asp Arg Lys
      180      185      190
Val Gly Lys Leu Phe Glu Asp Thr Lys Tyr Thr Thr Leu Ile Ala Lys
      195      200      205
Leu Lys Ser Asp Gly Ile Pro Met Tyr Lys Arg Asn Val Met Ile Leu
      210      215      220
Thr Asn Pro Val Ala Ala Lys Lys Asn Val Ser Ile Asn Thr Val Thr
225      230      235      240
Tyr Glu Trp Ala Pro Pro Val Gln Asn Gln Ala Leu Ala Arg Gln Tyr
      245      250      255
Met Gln Met Leu Pro Lys Glu Lys Gln Pro Val Ala Gly Ser Glu Gly
      260      265      270
Ala Gln Tyr Arg Lys Lys Gln Leu Ala Lys Gln Leu Pro Ala His Asp
      275      280      285
Gln Asp Pro Ser Lys Cys His Glu Leu Ser Pro Arg Glu Val Lys Glu
      290      295      300
Met Glu Gln Phe Val Lys Lys Tyr Lys Ser Glu Ala Leu Gly Val Gly
305      310      315      320
Asp Val Lys Leu Pro Cys Glu Met Asp Ala Gln Gly Pro Lys Gln Met
      325      330      335
Asn Ile Pro Gly Gly Asp Arg Ser Thr Pro Ala Ala Val Gly Ala Met
      340      345      350
Glu Asp Lys Ser Ala Glu His Lys Arg Thr Gln Tyr Ser Cys Tyr Cys
      355      360      365
Cys Lys Leu Ser Met Lys Glu Gly Asp Pro Ala Ile Tyr Ala Glu Arg
      370      375      380
Ala Gly Tyr Asp Lys Leu Trp His Pro Ala Cys Phe Val Cys Ser Thr
385      390      395      400
Cys His Glu Leu Leu Val Asp Met Ile Tyr Phe Trp Lys Asn Glu Lys
      405      410      415
Leu Tyr Cys Gly Arg His Tyr Cys Asp Ser Glu Lys Pro Arg Cys Ala
      420      425      430
Gly Cys Asp Glu Leu Ile Phe Ser Asn Glu Tyr Thr Gln Ala Glu Asn
      435      440      445
Gln Asn Trp His Leu Lys His Phe Cys Cys Phe Asp Cys Asp Ser Ile
      450      455      460
Leu Ala Gly Glu Ile Tyr Val Met Val Asn Asp Lys Pro Val Cys Lys
465      470      475      480
Pro Cys Tyr Val Lys Asn His Ala Val Val Arg Ser Val Leu Arg Ile
      485      490      495
Trp Leu Pro Gln Pro Ala Leu Gly Leu Glu Phe Met Leu Phe Leu Lys
      500      505      510
Pro Leu Thr Asn Gly Lys Gln Lys Ala Val Leu Leu Ser Arg Lys Gln
      515      520      525
Ile Ile Pro Thr Thr Gly Cys
      530      535

```

&lt;210&gt; 3821

&lt;211&gt; 5212

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3821

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&lt;210&gt; 3822

&lt;211&gt; 375

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3822

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			20					25					30		
Val	Asp	Val	Val	Leu	Glu	Asn	Gly	Ser	Gln	Tyr	Arg	Cys	Gln	Pro	Phe
		35				40						45			
Arg	Ser	Asp	Leu	Val	Leu	Pro	Phe	Leu	Pro	Arg	Ala	Arg	Ala	Glu	Arg
		50				55					60				
Thr	Val	Met	Arg	Gln	Asp	Asn	Arg	Asp	Thr	Val	Asp	Asp	Thr	Val	Ser
		65			70					75				80	
Ser	Glu	Ser	Leu	Gln	Ser	Leu	Phe	Ser	Glu	Trp	Asp	Asn	Pro	Val	Phe
			85						90				95		
Ala	Arg	Tyr	Pro	Glu	Val	Ala	Val	Asp	Val	Ser	Ser	Gly	Gln	Ala	Glu
			100					105					110		
Ser	Leu	Ala	Val	Lys	Ile	His	Asn	Ile	Leu	Tyr	Pro	Tyr	Arg	Phe	Thr
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Lys	Gly	Met	Ile	His	Ser	Met	Gln	Val	Leu	Gln	Gln	Val	Asp	Asn	Lys
		130				135						140			
Phe	Ile	Ala	Cys	Leu	Met	Ser	Thr	Lys	Thr	Glu	Glu	Asn	Gly	Glu	Ala
		145			150					155				160	
Asp	Ser	Tyr	Glu	Lys	Gln	Gln	Ala	Gln	Gly	Ser	Gly	Arg	Lys	Lys	Leu
			165						170				175		
Leu	Ser	Ser	Thr	Leu	Ile	Pro	Pro	Leu	Glu	Ile	Thr	Val	Thr	Glu	Glu
			180					185					190		
Gln	Arg	Arg	Leu	Leu	Trp	Cys	Tyr	His	Lys	Asn	Leu	Glu	Asp	Leu	Gly
		195				200						205			
Leu	Glu	Phe	Val	Phe	Pro	Asp	Thr	Ser	Asp	Ser	Leu	Val	Leu	Val	Gly
		210				215					220				
Lys	Val	Pro	Leu	Cys	Phe	Val	Glu	Arg	Glu	Ala	Asn	Glu	Leu	Arg	Arg



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<210> 3824

<211> 342

<212> PRT

<213> Homo sapiens

<400> 3824

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Ser	Gln	Val	Gln	Lys	Leu	Thr	Glu	Glu	Asn	Thr	Thr	Leu	Arg	Glu	Gln
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Val	Glu	Pro	Thr	Pro	Glu	Asp	Glu	Asp	Asp	Asp	Ile	Glu	Leu	Arg	Gly
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Ala	Ala	Ala	Ala	Ala	Ala	Pro	Pro	Pro	Pro	Ile	Glu	Glu	Glu	Cys	Pro
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Glu	Asp	Leu	Pro	Glu	Lys	Phe	Asp	Gly	Asn	Pro	Asp	Met	Leu	Ala	Pro
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Phe	Met	Ala	Gln	Cys	Gln	Ile	Phe	Met	Glu	Lys	Ser	Thr	Arg	Asp	Phe
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Ser	Val	Asp	Arg	Val	Arg	Val	Cys	Phe	Val	Thr	Ser	Met	Met	Thr	Gly
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Met	His	Asn	Tyr	Pro	Ala	Phe	Met	Met	Glu	Met	Lys	His	Val	Phe	Glu
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 225 230 235 240  
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 245 250 255  
 Arg Leu Ala Arg Ala Ala Ala Arg Lys Pro Arg Ser Pro Pro Arg  
 260 265 270  
 Ala Leu Val Leu Pro His Ile Ala Ser His His Gln Val Asp Pro Thr  
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 Glu Pro Val Gly Gly Ala Arg Met Arg Leu Thr Gln Glu Glu Lys Glu  
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&lt;210&gt; 3825

&lt;211&gt; 2051

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3825

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&lt;210&gt; 3826

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3826

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Leu	Ala	Gly	Lys	Ala	Phe	Leu	Ser	Asp	Val	Gln	Glu	Ala	Glu	Cys	Gln
			20					25					30		
Thr	Asp	Ser	Ser	Arg	Gly	Asn	Cys	Arg	Gly	Ser	Arg	Pro	Ala	Ser	Ser
			35				40					45			
Ile	Ser	Ser	Phe	Asp	Thr	Gly	Asp	Ile	Leu	Tyr	Ser	Pro	Phe	Ser	Arg

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Ser	Glu	Thr	Tyr	Lys	Ile	Thr	Leu	Gln	Xaa	Gly	Arg	Phe	Gln	Gly	Leu
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Lys	Asn	Ala	Lys	Val	Cys	Thr	Leu	Arg	Ala	Pro	Trp	Asn	Val	Asp	Asn
			85						90					95	
Ser	Gly	Ser	Lys	Thr	Lys	Phe	Cys	Val	Asn	Glu	Leu	Gln	Asn	Ser	Arg
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Gly	Ser	Gln	Cys	His	Phe	Ile	Ile	Asp	Asn	Asn	Thr	Glu			
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&lt;210&gt; 3827

&lt;211&gt; 1245

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3827

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<210> 3828

<211> 379

<212> PRT

<213> Homo sapiens

<400> 3828

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			20					25					30		
Leu	Gln	Thr	Trp	Asp	Ser	Glu	Asp	Phe	Gly	Ser	Pro	Gln	Lys	Ser	Cys
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Ser	Pro	Ser	Phe	Asp	Thr	Pro	Glu	Ser	Gln	Ile	Arg	Gly	Val	Trp	Glu
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Glu	Leu	Gly	Val	Gly	Ser	Ser	Gly	His	Leu	Ser	Glu	Gln	Glu	Leu	Ala
65					70					75					80
Val	Val	Cys	Gln	Ser	Val	Gly	Leu	Gln	Gly	Leu	Glu	Lys	Glu	Glu	Leu
			85						90					95	
Glu	Asp	Leu	Phe	Asn	Lys	Leu	Asp	Gln	Asp	Gly	Asp	Gly	Lys	Val	Ser
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Leu	Glu	Glu	Phe	Gln	Leu	Gly	Leu	Phe	Ser	His	Glu	Pro	Ala	Leu	Leu
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Gln	Val	Pro	Glu	Glu	Ser	Gly	Cys	His	Thr	Thr	Thr	Thr	Ser	Ser	Leu
145					150						155				160
Val	Ser	Leu	Cys	Ser	Ser	Leu	Arg	Leu	Phe	Ser	Ser	Ile	Asp	Asp	Gly
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Ser	Gly	Phe	Ala	Phe	Pro	Asp	Gln	Val	Leu	Ala	Met	Trp	Thr	Gln	Glu
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His	Gln	Glu	Leu	Ser	Tyr	Gln	Gln	Gly	Gln	Val	Glu	Gln	Leu	Ala	Arg
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Glu	Arg	Asp	Lys	Ala	Arg	Gln	Asp	Leu	Glu	Arg	Ala	Glu	Lys	Arg	Asn
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Leu	Glu	Phe	Val	Lys	Glu	Met	Asp	Asp	Cys	His	Ser	Thr	Leu	Glu	Gln
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Glu	Gln	Ala	His	Arg	Gln	Arg	Ala	Ala	Leu	Glu	Trp	Asp	Val	Gly	Arg
			325					330						335	
Leu	Gln	Ala	Glu	Glu	Ala	Gly	Leu	Arg	Glu	Lys	Leu	Thr	Leu	Ala	Leu

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<210> 3829

<211> 5713<212> DNA

<213> Homo sapiens

<400> 3829

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&lt;210&gt; 3830

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3830

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 Val Glu Ser Val Tyr Thr Thr Phe Arg Asp Arg Glu Ile Met Phe His

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 Ala Tyr Ile Val Val Gln Val Glu Thr Pro Gly Thr Glu Thr Pro Ser  
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 Tyr Lys Val Ser Val Thr Ala Arg Glu Asp Val Pro Thr Phe Gly Pro  
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 Gly Pro Glu Glu Asp Lys Phe Glu Asn Gly Gly His Gly Gly Phe Leu  
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 Met Val Gly Gly Gln Lys Lys Ser His Ser Gly Gly Ile Pro Gly Ser  
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 Phe Ser Pro Pro Val Val Ala Ala Thr Val Lys Asn Gln Ser Arg Ser  
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 Glu Gly Gln Gly Asp Ser Arg Ala Arg Cys Asp Ser Thr Ser Ser Thr  
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 Pro Lys Thr Pro Asp Gly Gly His Ser Ser Gln Glu Ile Lys Ser Glu  
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 Pro Phe Met Lys Leu Lys Glu Asn Gly Arg Ala Ile Ser Arg Ser Ser  
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 Ser Ser Thr Ser Ser Val Ser Ser Thr Ala Gly Glu Gly Glu Ala Met  
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 Lys Gln Glu Val Phe Val Tyr Ser Pro Ser Pro Ser Ser Glu Ser Pro  
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 Ser Leu Gly Ala Ala Ala Thr Pro Ile Ile Met Ser Arg Ser Pro Thr  
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&lt;210&gt; 3831

&lt;211&gt; 726

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3831

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&lt;210&gt; 3832

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3832

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20           25           30
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35           40           45
Ser Thr Asn Ser His Ile Asp Arg Ile Asn Phe Ser Val Lys Met Val
50           55           60
Ser Ser Ile Leu Gln Ile Pro Lys Leu Ser Tyr Leu Gly Leu Gly Asp
65           70           75           80
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&lt;210&gt; 3833

&lt;211&gt; 1764

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3833

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<210> 3834

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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&lt;210&gt; 3835

&lt;211&gt; 2366

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3835

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 1800  
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 acagacgcgg cgatggcatc acacagacgg tgatgatgtc acacacagac acagtgacaa  
 1920  
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 1980  
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 2160  
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 2220  
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 2280  
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 2340  
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 2366

&lt;210&gt; 3836

&lt;211&gt; 479

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3836

Xaa Ala Phe Asp Ile Arg Pro Glu Leu Arg Arg Ser Ser Ser Thr Leu  
 1 5 10 15  
 Glu Leu Met Arg Ala Gly Leu Val Val Ser Arg Asp Gly Ala Pro Asp  
 20 25 30  
 Gly Gly Ile Glu Gln Met Gly Leu Ala Met Glu His Gly Gly Ser Tyr

35 40 45  
 Ala Arg Ala Gly Gly Ser Ser Arg Gly Cys Trp Tyr Tyr Leu Arg Tyr  
 50 55 60  
 Phe Phe Leu Phe Val Ser Leu Ile Gln Phe Leu Ile Ile Leu Gly Leu  
 65 70 75 80  
 Val Leu Phe Met Val Tyr Gly Asn Val His Val Ser Thr Glu Ser Asn  
 85 90 95  
 Leu Gln Ala Thr Glu Arg Arg Ala Glu Gly Leu Tyr Ser Gln Leu Leu  
 100 105 110  
 Gly Leu Thr Ala Ser Gln Ser Asn Leu Thr Lys Glu Leu Asn Phe Thr  
 115 120 125  
 Thr Arg Ala Lys Asp Ala Ile Met Gln Met Trp Leu Asn Ala Arg Arg  
 130 135 140  
 Asp Leu Asp Arg Ile Asn Ala Ser Phe Arg Gln Cys Gln Gly Asp Arg  
 145 150 155 160  
 Val Ile Tyr Thr Asn Asn Gln Arg Tyr Met Ala Ala Ile Ile Leu Ser  
 165 170 175  
 Glu Lys Gln Cys Arg Asp Gln Phe Lys Asp Met Asn Lys Ser Cys Asp  
 180 185 190  
 Ala Leu Leu Phe Met Leu Asn Gln Lys Val Lys Thr Leu Glu Val Glu  
 195 200 205  
 Ile Ala Lys Glu Lys Thr Ile Cys Thr Lys Asp Lys Glu Ser Val Leu  
 210 215 220  
 Leu Asn Lys Arg Val Ala Glu Glu Gln Leu Val Glu Cys Val Lys Thr  
 225 230 235 240  
 Arg Glu Leu Gln His Gln Glu Arg Gln Leu Ala Lys Glu Gln Leu Gln  
 245 250 255  
 Lys Val Gln Ala Leu Cys Leu Pro Leu Asp Lys Asp Lys Phe Glu Met  
 260 265 270  
 Asp Leu Arg Asn Leu Trp Arg Asp Ser Ile Ile Pro Arg Ser Leu Asp  
 275 280 285  
 Asn Leu Gly Tyr Asn Leu Tyr His Pro Leu Gly Ser Glu Leu Ala Ser  
 290 295 300  
 Ile Arg Arg Ala Cys Asp His Met Pro Ser Leu Met Ser Ser Lys Val  
 305 310 315 320  
 Glu Glu Leu Ala Arg Ser Leu Arg Ala Asp Ile Glu Arg Val Ala Arg  
 325 330 335  
 Glu Asn Ser Asp Leu Gln Arg Gln Lys Leu Glu Ala Gln Gln Gly Leu  
 340 345 350  
 Arg Ala Ser Gln Glu Ala Lys Gln Lys Val Glu Lys Glu Ala Gln Ala  
 355 360 365  
 Arg Glu Ala Lys Leu Gln Ala Glu Cys Ser Arg Gln Thr Gln Leu Ala  
 370 375 380  
 Leu Glu Glu Lys Ala Val Leu Arg Lys Glu Arg Asp Asn Leu Ala Lys  
 385 390 395 400  
 Glu Leu Glu Glu Lys Lys Arg Glu Ala Glu Gln Leu Arg Met Glu Leu  
 405 410 415  
 Ala Ile Arg Asn Ser Ala Leu Asp Thr Cys Ile Lys Thr Lys Ser Gln  
 420 425 430  
 Pro Met Met Pro Val Ser Arg Pro Met Gly Pro Val Pro Asn Pro Gln  
 435 440 445  
 Pro Ile Asp Pro Ala Ser Leu Glu Glu Phe Lys Arg Lys Ile Leu Glu  
 450 455 460  
 Ser Gln Arg Pro Pro Ala Gly Ile Pro Val Ala Pro Ser Ser Gly

465

470

475

&lt;210&gt; 3837

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3837

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ggggactgcc aactcatgtg tctgttttagc tcaccttttc ctgtgcccac cctccaaccc  
180  
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240  
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300  
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360  
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1200  
cgccgggaag gattaggtag caactaccta ggtggctgta gcccactga gcaggaagaa  
1260  
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1320  
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1380

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 1680  
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 1920  
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 1980  
 gagcactctg gggcagcctg gctcagggtt attgattttc gtctgtttac cctatccatt  
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 2084

&lt;210&gt; 3838

&lt;211&gt; 468

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3838

Leu His Pro Thr Asp Trp Asp Gly Lys Val Ser Glu Ile Lys Lys Lys  
 1 5 10 15  
 Ile Lys Ser Ile Leu Pro Gly Arg Ser Cys Asp Leu Leu Gln Asp Thr  
 20 25 30  
 Ser His Leu Pro Pro Glu His Ser Asp Val Val Ile Val Gly Gly Gly  
 35 40 45  
 Val Leu Gly Leu Ser Val Ala Tyr Trp Leu Lys Lys Leu Glu Ser Arg  
 50 55 60  
 Arg Gly Ala Ile Arg Val Leu Val Val Glu Arg Asp His Thr Tyr Ser  
 65 70 75 80  
 Gln Ala Ser Thr Gly Leu Ser Val Gly Gly Ile Cys Gln Gln Phe Ser  
 85 90 95  
 Leu Pro Glu Asn Ile Gln Leu Ser Leu Phe Ser Ala Ser Phe Leu Arg  
 100 105 110  
 Asn Ile Asn Glu Tyr Leu Ala Val Asp Ala Pro Pro Leu Asp Leu  
 115 120 125  
 Arg Phe Asn Pro Ser Gly Tyr Leu Leu Leu Ala Ser Glu Lys Asp Ala  
 130 135 140  
 Ala Ala Met Glu Ser Asn Val Lys Val Gln Arg Gln Glu Gly Ala Lys  
 145 150 155 160  
 Val Ser Leu Met Ser Pro Asp Gln Leu Arg Asn Lys Phe Pro Trp Ile  
 165 170 175  
 Asn Thr Glu Gly Val Ala Leu Ala Ser Tyr Gly Met Glu Asp Glu Gly

180 185 190  
 Trp Phe Asp Pro Trp Cys Leu Leu Gln Gly Leu Arg Arg Lys Val Gln  
 195 200 205  
 Ser Leu Gly Val Leu Phe Cys Gln Gly Glu Val Thr Arg Phe Val Ser  
 210 215 220  
 Ser Ser Gln Arg Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys  
 225 230 235 240  
 Arg Ile His Glu Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln  
 245 250 255  
 Pro Val Glu Cys Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala  
 260 265 270  
 Gln Ile Ala Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu  
 275 280 285  
 Gln Gly Thr Lys Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val  
 290 295 300  
 Trp His Cys Pro Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp  
 305 310 315 320  
 Thr Ser Gly Ala Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu  
 325 330 335  
 Gly Gly Arg Ser Pro Thr Glu Gln Glu Glu Pro Asp Pro Ala Asn Leu  
 340 345 350  
 Glu Val Asp His Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala  
 355 360 365  
 Leu Arg Val Pro Ala Phe Glu Thr Leu Lys Cys Phe Val His Pro Gln  
 370 375 380  
 Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp Tyr Asn Thr Phe Asp Gln  
 385 390 395 400  
 Asn Gly Val Val Gly Pro His Pro Leu Val Val Asn Met Tyr Phe Ala  
 405 410 415  
 Thr Gly Phe Ser Gly His Gly Leu Gln Gln Ala Pro Gly Ile Gly Arg  
 420 425 430  
 Ala Val Ala Glu Met Val Leu Lys Gly Arg Phe Gln Thr Ile Asp Leu  
 435 440 445  
 Ser Pro Phe Leu Phe Thr Arg Phe Tyr Leu Gly Glu Lys Ile Gln Glu  
 450 455 460  
 Asn Asn Ile Ile  
 465

&lt;210&gt; 3839

&lt;211&gt; 758

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3839

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gaggaggagg aggaggagaa agaccagcct gccgagatgg agtaccttaa ctctcgctgt  
 120

gtccttttca cttattttcca gggagacatt gggtcagtag tggatgaaca cttctcaaga  
 180

gctttgggcc aagccatcac cctccatcca gaatctgcc tttcaaaaag caagatgggg  
 240

ctaaccccc tatggcgaga cagctcagct ctctcaagcc agcggaatag tttcccaact  
 300

tccttttggga ccagctctta ccagccccc cctgcacctt gtttggggg agttcatect  
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 600  
 cctcctgctg gctctgccct ggatccatcc tatgggcctc tgctgatgcc ttcagtgcac  
 660  
 gcggccagga ttctgtctcc ccagtgtgac atcacaaga cagaaccaac tacagtcacc  
 720  
 tctgtacct cagcatgggc tggagccttt catggaac  
 758

&lt;210&gt; 3840

&lt;211&gt; 252

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3840

Xaa Arg Val Gln Asp Ser Leu Glu Val Thr Leu Pro Ser Lys Gln Glu  
 1 5 10 15  
 Glu Glu Asp Glu Glu Glu Glu Glu Lys Asp Gln Pro Ala Glu  
 20 25 30  
 Met Glu Tyr Leu Asn Ser Arg Cys Val Leu Phe Thr Tyr Phe Gln Gly  
 35 40 45  
 Asp Ile Gly Ser Val Val Asp Glu His Phe Ser Arg Ala Leu Gly Gln  
 50 55 60  
 Ala Ile Thr Leu His Pro Glu Ser Ala Ile Ser Lys Ser Lys Met Gly  
 65 70 75 80  
 Leu Thr Pro Leu Trp Arg Asp Ser Ser Ala Leu Ser Ser Gln Arg Asn  
 85 90 95  
 Ser Phe Pro Thr Ser Phe Trp Thr Ser Ser Tyr Gln Pro Pro Pro Ala  
 100 105 110  
 Pro Cys Leu Gly Gly Val His Pro Asp Phe Gln Val Thr Gly Pro Pro  
 115 120 125  
 Gly Thr Phe Ser Ala Ala Asp Pro Ser Pro Trp Pro Gly His Asn Leu  
 130 135 140  
 His Gln Thr Gly Pro Ala Pro Pro Pro Ala Val Ser Glu Ser Trp Pro  
 145 150 155 160  
 Tyr Pro Leu Thr Ser Gln Val Ser Pro Ser Tyr Ser His Met His Asp  
 165 170 175  
 Val Tyr Met Arg His His His Pro His Ala His Met His His Arg His  
 180 185 190  
 Arg His His His His His His His Pro Pro Ala Gly Ser Ala Leu Asp  
 195 200 205  
 Pro Ser Tyr Gly Pro Leu Leu Met Pro Ser Val His Ala Ala Arg Ile  
 210 215 220  
 Pro Ala Pro Gln Cys Asp Ile Thr Lys Thr Glu Pro Thr Thr Val Thr  
 225 230 235 240  
 Ser Ala Thr Ser Ala Trp Ala Gly Ala Phe His Gly

245

250

&lt;210&gt; 3841

&lt;211&gt; 367

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3841

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 120  
 atagtgtgct ttctcttcct cattgaacat ccgaacgacg tcaggtgctc ctccaccctg  
 180  
 gtgacgcact caaaaggcta tgagaatggg acaaacagggt tgagcctccc gaagccaatc  
 240  
 ttgaagagcg aaaagaacaa gcctctggac ccagagatgc agtgcttgc gctctcagat  
 300  
 gggaagggtc ccatccaccc gaaccacgtc gtcattctcc ccggggacgg tgggagtggc  
 360  
 ccggccg  
 367

&lt;210&gt; 3842

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3842

Leu	Gly	Thr	Pro	His	Thr	Ser	Val	Gly	Asn	Ile	Leu	Gly	Ser	Leu	Ile
1				5					10					15	
Ala	Gly	Tyr	Trp	Val	Ser	Thr	Cys	Trp	Gly	Leu	Ser	Phe	Val	Val	Pro
			20					25					30		
Gly	Ala	Ile	Val	Ala	Ala	Met	Gly	Ile	Val	Cys	Phe	Leu	Phe	Leu	Ile
		35				40					45				
Glu	His	Pro	Asn	Asp	Val	Arg	Cys	Ser	Ser	Thr	Leu	Val	Thr	His	Ser
		50				55					60				
Lys	Gly	Tyr	Glu	Asn	Gly	Thr	Asn	Arg	Leu	Ser	Leu	Pro	Lys	Pro	Ile
65					70				75					80	
Leu	Lys	Ser	Glu	Lys	Asn	Lys	Pro	Leu	Asp	Pro	Glu	Met	Gln	Cys	Leu
			85					90						95	
Leu	Leu	Ser	Asp	Gly	Lys	Gly	Ser	Ile	His	Pro	Asn	His	Val	Val	Ile
			100					105					110		
Leu	Pro	Gly	Asp	Gly	Gly	Ser	Gly	Pro	Ala						
		115					120								

&lt;210&gt; 3843

&lt;211&gt; 712

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3843

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<210> 3844
<211> 143
<212> PRT
<213> Homo sapiens
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<210> 3845
<211> 2302
<212> DNA
<213> Homo sapiens
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<400> 3845



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120  
gtcaccaggt gactacctga tgatgctgat gccaccagc caggaggagg agaaagacaa  
180  
gcctgtggcc cccagcaacg tcctgtcgat ggcccagctg cgcacgctgc ccctggccga  
240  
tcagatcaag atcctgatga agaattgtgaa ggtcatgcct ttgccaact tgatgagcct  
300  
cctggggcccc tccatcgatt ccgtggctgt tctgcggggc atccagaagg tggcgatgtt  
360  
ggtccaaggg aactgggtgg tgaagagtga catcctatac cccaaggact cgtccagccc  
420  
tcacagcggc gtgcctgctg aggtgctctg caggggcccga gacttcgtta tgtggaagt  
480  
cacgcagagc cgctgggtgg ttaggaaaga ggtggcaacc gtgaccaaac tctgcgccga  
540  
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660  
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720  
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780  
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 1740  
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 1860  
 ttaatatattt cttttgtaaa cttaatgccca acaagggtcta agttatgttt acaacatgaa  
 1920  
 gaaaacctca aagttcttaa tttttaaaat gcctagaaga caatatttag tcttggatta  
 1980  
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 2040  
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 2100  
 catgaacct agcaaaaaaa tcagaatcaa atccatctcc ttttaatggt tgcagaaaga  
 2160  
 tgcaaacaaa accaggttaag tatggaacaa tgtgtaagt aggttatcac actttgatgt  
 2220  
 aaaaaatttct attttgtgta tttttaaaat aaatgcaaac actaaactaa aaaaaaaaaa  
 2280  
 aaaaaaaaaa aaaaaaaaaa aa  
 2302

&lt;210&gt; 3846

&lt;211&gt; 197

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3846

Ser Cys Lys Gly Asn His Ala Lys Glu Ala Gly Cys Thr Ile Arg Ala  
 1 5 10 15  
 Cys Arg Ala Gly Leu Trp Gly Pro Ala Asp Pro Ser Ser Gln Asn Gln  
 20 25 30  
 Gly Pro Ala Glu Pro Arg Val Ala Gly Ala Gly Ala Ala Ala Glu  
 35 40 45  
 Gly Ala Ala Ala Gly Ala Cys Gly Pro Ala Arg Cys Ala Asp Gln Gly  
 50 55 60  
 Gly Ala Arg Glu Arg Gly Gly Arg Gly Gly Ala Gly Gly Gly  
 65 70 75 80  
 Gly Gly Ala His Gly His Phe Pro Gln Arg Pro Pro Gln Gln Ala Gly  
 85 90 95  
 Gln Arg Ala Ala Ser Arg Ala Gly Cys Gly His Arg Gln Leu Gln Arg  
 100 105 110  
 Ala Pro Ala Pro Gly Leu Arg Gln His Pro Cys Gly Ser Gly Thr Glu  
 115 120 125  
 Gly Leu Arg Gly Gly His Leu Ser Glu Thr Val Cys Ala His Ala Glu  
 130 135 140  
 Arg Thr Gln Ala Pro Leu Gln Ser Ala Leu Gly Gln Pro Ala Pro Arg  
 145 150 155 160  
 Pro His Thr Leu Gln Arg His Leu Gly Pro His Ala Thr Gly His Gly  
 165 170 175  
 Ala Gly Arg Arg Leu Gln Ala Asp Thr Gly Ala Phe Ser Pro Pro Asp

180  
Cys Cys Phe Pro Gly  
195

185

190

<210> 3847  
<211> 1570  
<212> DNA  
<213> Homo sapiens

<400> 3847  
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120  
ttctggaatt cctcctcctt aggcaagcct atcacagcat cctgaccctg ggggcctctg  
180  
tgcagctggt gtttggcttt gaggtaaaac tggcttggga ggttgagagg acaagcccga  
240  
ggtgaccca catgtgcctt gaataacca acagaccctt cctcagcacc tgctatgtgg  
300  
ccaacctgtg ctggccacca aggggcagtg atcagatatg gctcctgccc tccacacgct  
360  
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600  
tgcattctctt attcagcaag acaatactgt tataaaggaa cagttaatta tgtcatttta  
660  
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